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JOURNAL

OF THE

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78th Annual Meeting

Sheraton-Peabody Hotel, Memphis

February 15-16-17, 1967

TENNESSEE MEDICAL ASSOCIATION

132nd Annual Meeting

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April 13-14-15, 1967



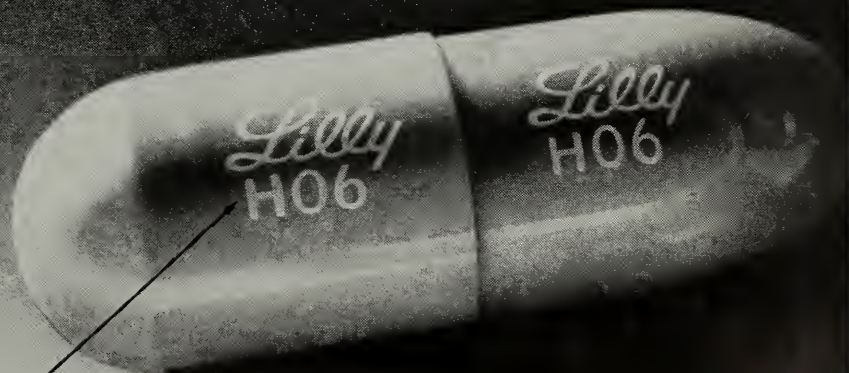
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Journal of the Tennessee Medical Association

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VOLUME 60

JANUARY, 1967

NO. 1

Not only has the author confirmed the satisfactory results which may be obtained in the control of intractable angina pectoris by the ablation of thyroidal function, but has demonstrated in addition a number of factors that clearly affect the ultimate prognosis.

Intractable Angina Pectoris — Treatment With Radioiodine

LAURENCE A. GROSSMAN, M.D.,* Nashville, Tennessee

Introduction

Intractable angina pectoris presents many problems. Intractable angina refers to a marked increase in frequency of pain, with the pain being more prolonged, occurring at rest and being experienced with less and less provocation. Always an investigation is made for changes which could account for such a state, such as an acute coronary thrombosis, minimal left-sided heart failure, calcification of a stenotic aortic valve, and noncardiac disease, as anemia, pulmonary embolism and the like. A narrowing or partial occlusion of a coronary artery without actual infarction may be the cause. Usually, the intensification of angina is self-limited and is followed by clinical improvement. The time interval is variable. When such factors have been eliminated, and when frequent angina persists despite the use of appropriate drugs, the angina pectoris is termed intractable. Psychic factors play a role in these patients and must be evaluated and treated. The current attempt to emphasize surgical management makes consideration of alternate and less radical forms of treatment more important. The use of radioactive iodine with the subsequent development of the myxedematous state has been employed for such patients.

The treatment of angina pectoris in the euthyroid patient by surgical thyroidectomy was first reported by Blumgart, Levine and Berlin¹ in 1933. Later investigators con-

firmed the efficacy of this procedure in the treatment of angina pectoris. Raab,² in 1945, employed antithyroid medications to accomplish medical thyroidectomy in preventing frequent and severe angina pectoris. However, the blocking action of antimetabolites on the thyroid gland lasted only as long as they were administered. There were also undesirable side reactions to the use of these compounds. A lasting hypometabolic state by irradiation of the thyroid gland was reported by Blumgart³ in 1948, when he demonstrated that euthyroid cardiac patients who were treated with oral doses of radioactive iodine obtained marked relief of their angina as soon as they became either hypothyroid or myxedematous.

When to institute radioactive iodine therapy is a problem. No patient in this series received radioactive iodine within six months of an acute myocardial infarction. In almost every instance the patient required 10, 15, or more nitroglycerin tablets daily and some were using at least 100 nitroglycerin tablets daily. Each was totally incapacitated by his disease. All were having angina decubitus. No patient with a recent onset of angina was treated. Every effort had been made to stabilize these patients with the use of nitroglycerin, sedatives, coronary vasodilating preparations, and anticoagulant drugs. Other measures, such as weight reduction, chemotherapy for control of hypertension, digitalization, and attempts to promote tobacco abstinence were employed. The emotional aspects of the disease were evaluated and treated as necessary. Only after all other methods of treatment

* From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tenn.

had failed, was radioactive iodine therapy employed. These patients were treated before we had begun to do coronary artery visualization, so we had no cinecoronary arteriograms prior to treatment.

All the patients were grade 3 or 4 of the American Heart Association's functional and therapeutic classifications. There were no strict criteria for their selection. In determining the results, only the patients who survived 90 days after institution of treatment could be evaluated. The production of myxedema or the hypothyroid state would require at least such a time interval. Antithyroid drugs were not employed in any of our patients prior to the administration of radioiodine. A state of hypometabolism was usually reached in 8 to 12 weeks, although in some patients as long as 4 months was necessary. Clinical findings were important in evaluating the hypometabolic state as the protein-bound iodine was invariably low. These included extreme lethargy, disabling intolerance to cold, malaise, etc. If the induced hypometabolic state was disabling, the symptoms of myxedema could easily be controlled by the administration of desiccated thyroid or the more recent synthetic thyroid compounds. This prevented the undesirable effects of myxedema, and, at times, would enable the patient to return to a useful occupation.

Method of Iodine 131 Treatment

There are several methods of thyroid ablation by the use of radioactive iodine. The simplest is to administer a single dose of radioiodine sufficient to destroy the gland. When such a large dose of radiation is delivered to the thyroid gland over a relatively short period of time, an intense radiation effect occurs. There is often severe thyroiditis and, on occasion, an outpouring of stored hormone during the period of maximal radiation effect. This large outpouring of hormone into the circulation may have a deleterious effect upon an already diseased heart. Such consideration has led to the method of divided doses, and this we have followed with some recent modification. Initially our patients received 20 millicuries of radioiodine monthly for 3 months. Later, it became a policy to administer this in

weekly doses of 5 millicuries, the patient receiving 4 to 6 doses of radioactive iodine. The majority of patients were treated on an out-patient basis.

Results

During the past 10 years, a total of 30 patients received radioactive iodine for the treatment of intractable angina pectoris. I have examined all of these patients and there has been a follow-up to the present date or to the time of death on each patient. One patient was not included in the series because she died one week after receiving the initial dose of radioactive iodine. Death resulted from an acute myocardial infarction. Of the 30 patients treated, 18 were men (Table 1) and 12 were women (Table 2). The ages of the men varied from 37 to 76 and the ages of the women from 44 to 69. The mean age of the men treated was 59.6 years and the mean age of the women treated was 61.3 years.

Six of the 18 men have died (Fig. 1). The

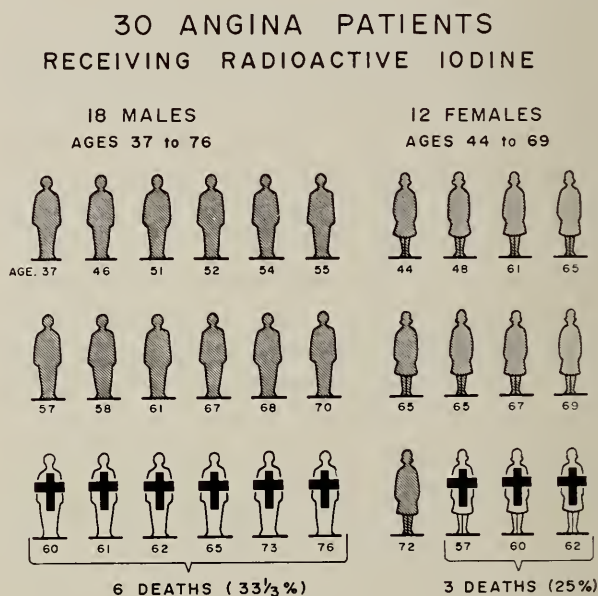


FIGURE 1

ages at death of the 6 were 73, 68, 69, 78, 61, and 64. Of those who died, one had diabetes mellitus. Of the 12 survivors, one man is also a diabetic. Of the men who died, only one had not previously had a myocardial infarction prior to treatment with radioactive iodine. This patient had severe aortic insufficiency and pronounced left ventricular failure. Death resulted from left ventricu-

Table I

MALE PATIENTS						
Patient	Age	Duration of Angina (Yrs.)	PMI (No.)	Treatment Interval	Miscellaneous	Cigarettes Per Day
*1.	60	4½	1	8 Mos.	HVD Parkinsonism	30-40
*2.	61	4	5	3 Yrs.	HVD	20-30
*3.	62	2	0	6 Yrs.	HVD Aortic Insufficiency	40
*4.	65	6½	3	3 Yrs. 10 Mos.	Diabetes	15-20
*5.	73	6	2	7 Mos.	Ventricular Aneurysm	0
*6.	76	20	1	1 Yr. 7 Mos.	HVD	20-30
7.	37	2	0	9 Yrs. 6 Mos.	Ligation Internal Mammary A.	0
8.	46	1	0	9 Mos.	Rheumatoid Arthritis	10-15
9.	51	2	0	2 Yrs.	—	0
10.	52	¾	1	8 Yrs.	Gout	0
11.	54	2½	2	1 Yr. 5 Mos.	—	30 (Formerly)
12.	55	1	0	5 Yrs.	Ureteral Stone Duodenal Ulcer	15-20
13.	57	1½	0	10 Mos.	HVD Duodenal Ulcer	20-25
14.	58	2	0	9 Yrs. 6 Mos.	HVD Kidney Stones	40-50
15.	61	¾	1	9 Mos.	HVD Hepatitis	0
16.	67	6	2	5 Yrs. 9 Mos.	Depression	0
17.	68	10	1	10 Mos.	HVD	20
18.	70	5½	0	4 Yrs.	HVD, Diabetes Hiatus Hernia	30 (Formerly)

*DIED

Table II

FEMALE PATIENTS						
Patient	Age	Duration of Angina (Yrs.)	PMI (No.)	Treatment Interval	Miscellaneous	Cigarettes Per Day
*1.	57	1½	1	8 Yrs. 2 Mos.	HVD, Gall Stones, Parkinsonism	15-20
*2.	60	2	2	5 Yrs.	HVD	0
*3.	62	¾	3	2 Yrs. 8 Mos.	HVD, Gall Stones Diabetes	20
4.	44	1½	1	2 Yrs. 8 Mos.	Cholecystitis Emotional Instability	0
5.	48	¾	1	3 Yrs. 4 Mos.	Gall Stones	0
6.	61	2	1	3 Yrs.	Gall Stones	0
7.	65	1	0	4 Yrs. 3 Mos.	Hiatal Hernia, Gall Stones Duodenal Ulcer	20-25
8.	65	7	0	2 Yrs.	Gall Stones	0
9.	65	3	2	2 Yrs. 6 Mos.	HVD	0
10.	67	7½	1	7 Yrs.	Rheumatic Heart Gall Stones	0
11.	69	½	1	1 Yr. 5 Mos.	HVD Diabetes	0
12.	72	14	0	4 Yrs. 2 Mos.	HVD Gall Stones	0

*DIED

lar failure. Of the 18 men, 8 (45.5%) had not had a myocardial infarction prior to the treatment with radioiodine (Fig. 2). Of these 8, 7 still survive. The patient who died was the man with marked aortic valvular disease.

In a further analysis of the 18 male patients, the duration of angina in this group

ranged from 9 months to 20 years. The follow-up time from the date of treatment until the present date or the time of death ranges from 6 months to 9 years and 6 months (Fig. 3).

Of the female patients treated, 3 are dead. Their ages at the time of death were 65, 65, and 64. Two of the 3 who expired were dia-

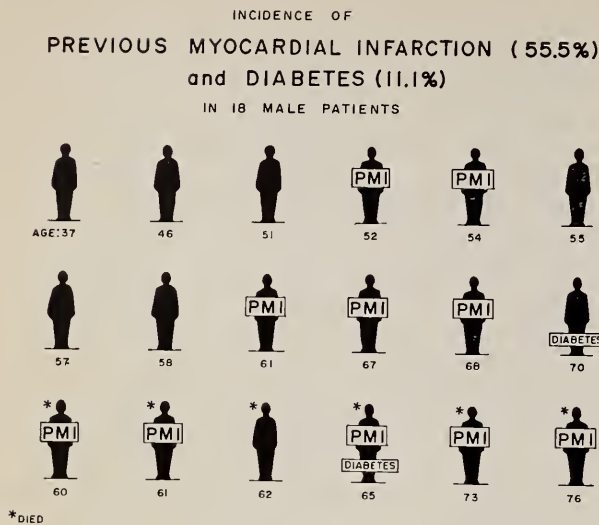


FIGURE 2

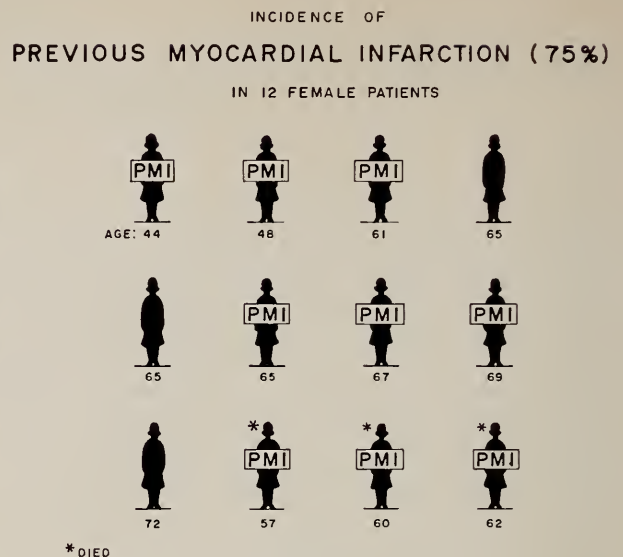


FIGURE 4

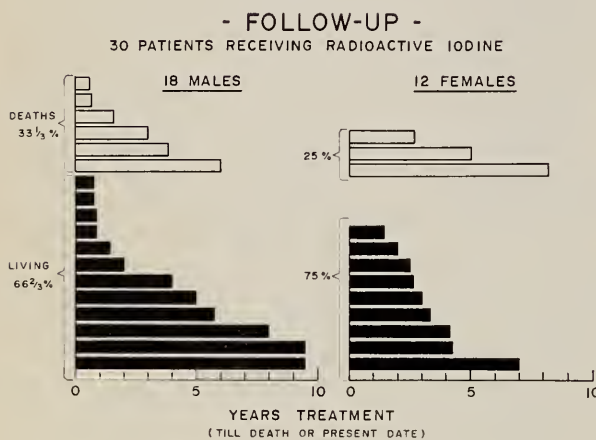
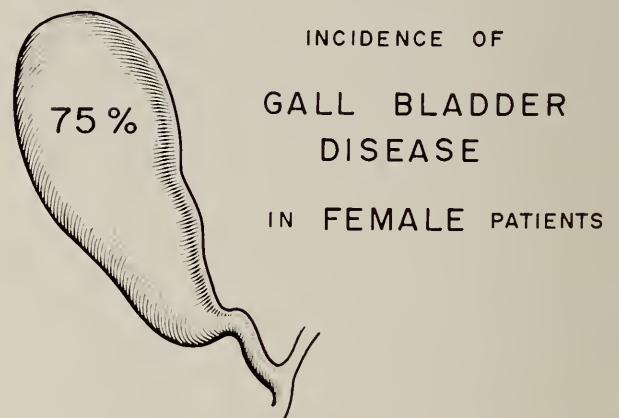


FIGURE 3



(NONE IN MALE PATIENTS)

FIGURE 5

betics. One of the 9 who are living at this time also has diabetes. These patients had angina pectoris from 18 months to 8 years and 4 months prior to treatment. Of the 12, only 3 had not previously had a myocardial infarction (Fig. 4). All 3 patients who died had myocardial infarctions prior to treatment with radioactive iodine.

It is also interesting that 9 of the 12 women had known gall bladder disease and had had cholecystectomies (Fig. 5). Eight of the 9 had gall stones. One had advanced cholecystitis without stones. This is in contrast of the 18 men with intractable angina pectoris. Not a single male patient was found to have gall bladder disease or gall stones. One man had an esophageal hiatus hernia. Two had duodenal ulcers. One is known to have gout. Two of the 18 have renal calculi. One had had severe hepatitis.

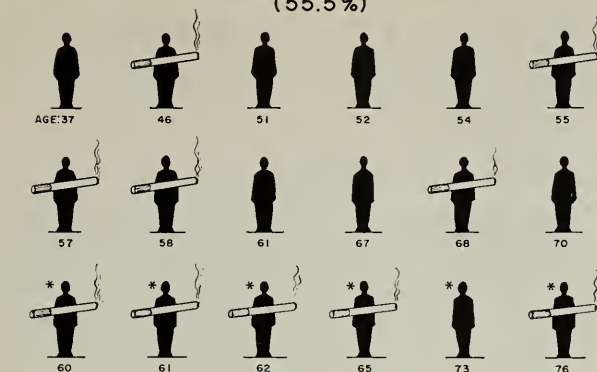
Nine of the 18 men had hypertension of

moderate severity. Six of the 12 women were also hypertensive. Thirteen of the 18 men smoked at least 20 cigarettes daily. Five of the 18 male patients were nonsmokers or had stopped the use of cigarettes 2 years before treatment with radioactive iodine. (Fig. 6.) Only 3 of the 12 women smoked 20 cigarettes or more each day.

In an attempt to classify the results, there were five categories: (1) "Excellent." These patients had no angina or at the most would have a single bout of angina in a period of one week. They were able to return to their former occupation and resume an active life. (2) The second category of "Very Good" included patients who had angina once a day, but rarely more. These patients were also completely rehabilitated. (3) The third group, listed as "Good," in-

INCIDENCE OF SMOKING IN 18 MALE ANGINA PATIENTS

(55.5%)



* DIED (SMOKING INCIDENCE IN THIS GROUP: 83.3%)

FIGURE 6

cludes the patient who had one or two bouts of angina pectoris each day, but who was able to return to a relatively nonrestricted life. (4) Persons in whom the number of anginal attacks were diminished by 50% were rated as "Fair." (5) All patients who stated that frequent angina continued or that the number of nitroglycerin tablets required were up to one-half those previously required, or who received no benefit whatsoever, were recorded as "Poor" results.

Of the 18 men, 10 reported excellent results, 3 very good, 1 good, 1 fair, and 3 poor. Of the 12 women, 6 obtained excellent results, 1 very good, 3 good, 2 fair, and none poor results (Fig. 7). In evaluating the

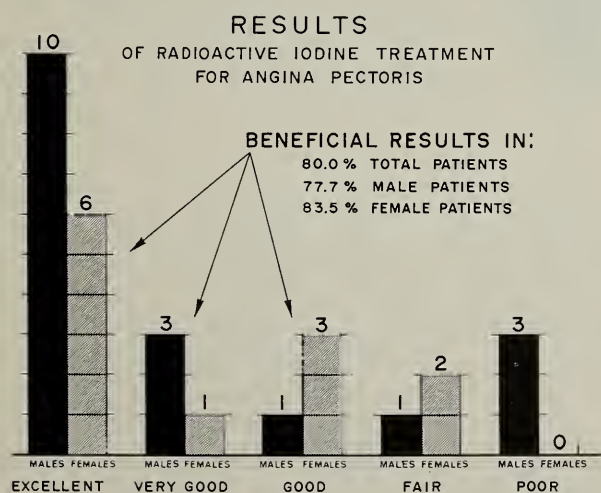


FIGURE 7

effectiveness of this treatment, the groups excellent, very good, and good were considered to be benefitted by the program with radioactive iodine therapy. Thus, of 18

men, in 14 the treatment was beneficial. Ten of the 12 women also were listed as having suitably beneficial results from this form of therapy. Of those male patients who did not benefit from the radioactive iodine therapy, 3 of the 4 were hypertensive, and of the women who obtained unsatisfactory results, 1 of 2 was hypertensive.

One of the 4 unsatisfactory results among the male patients occurred in a nonsmoker. Of the 10 men obtaining excellent results from radioactive iodine treatment, 4 were nonsmokers, whereas of the 6 women obtaining excellent results from this form of therapy, 5 were nonsmokers.

Discussion

There have been many studies of cardiopulmonary physiology in myxedema. The oxygen consumption is diminished by approximately 40%, the circulation is slowed, and peripheral blood flow is decreased. Venous return, heart rate, stroke volume, and cardiac output are decreased as well. Cardiac output is reduced because the oxygen consumption of the tissues is greatly lessened. The capillaries of the skin are deepened due to tissue edema and less heat is dissipated. Since cardiac output is decreased more than is oxygen consumption in the peripheral tissues, the cardiac efficiency may be viewed as being greater than normal. That is, in the hypothyroid state there is less energy used by the heart for normal activity and also following exercise. Another parameter of cardiopulmonary physiology in myxedema relates to the decreased sensitivity of the tissues to epinephrine. It is known that the thyroid hormone has a potentiating effect on the action of the adrenomedullary secretions. The metabolic and the cardiovascular stimulating properties of epinephrine are increased in hyperthyroidism and decreased in myxedema.

The results are difficult to evaluate because other events take place in addition to the administration of radioactive iodine. There is added enthusiasm, encouragement of the patient, and often reduction in cigarette consumption. The psychic factors are important. Evidence of benefit is indirect and consists of relief or lessening of pain—always subjective. The variable na-

ture of angina pectoris makes it even more a problem to assess the outcome.

Smoking has a definite relationship in the ultimate evaluation of such treatment. It is probably related to the incidence of intractable angina pectoris, as many other studies have indicated.

There is a surprisingly high incidence of gall bladder disease and, particularly, cholelithiasis in women with severe angina. This contrasts to the relatively small number of men who have intractable angina pectoris and associated gall bladder disease.

From this study, one concludes that radioactive iodine therapy may be beneficial in the patient with intractable angina. The exact time and indications for such treatment are difficult to outline. Results of this treatment cannot be accurately assessed.

Many factors, particularly the psychic one, play a role in the evaluation of such a patient.

In appraising the surgical treatment of coronary disease, the benefits of radioactive iodine therapy should be kept in mind.

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Current Concepts Concerning The Pathogenesis of the Hyperthyroidism of Graves' Disease*

DAVID N. ORTH, M.D.,† Nashville, Tenn.

In the past several years much has been accomplished in dispelling the mystery about the pathogenesis of the thyroid hyperfunction of Graves' disease. These developments are best viewed with an historical perspective. In 1931, Loeb and Friedman¹ produced experimental thyrotoxicosis in guinea pigs using repeated injections of crude anterior pituitary extracts. Their results suggested that the thyrotoxicosis of Graves' disease might be caused by hypersecretion of pituitary thyrotropin (TSH). The results of the numerous subsequent studies of plasma TSH levels in Graves' disease were contradictory, however, and indicated that, if anything, the plasma TSH concentrations were low in patients with this disorder.² To be sure, the biologic assay systems which were available at the time were insensitive and imprecise, and contributed to the confusion.

In 1955, Adams and Purves³ developed a much more sensitive bio-assay for thyrotropic activity. It is necessary to understand the nature of this assay system in order to appreciate the subsequent advances in this field. Adams and Purves first maintained guinea pigs on an iodine-deficient diet. This reduced the iodine available to the thyroid gland for synthesis of thyroid hormone, and, as the level of circulating thyroid hormone decreased, the pituitary secretion of endogenous TSH increased. In this setting, the animals were given a small dose of radioactive iodine which was avidly taken up by the depleted gland, under the influence of TSH, and converted to labeled thyroid hormone. At this point desiccated thyroid was administered to the guinea pigs, suppressing endogenous TSH secretion and thereby inhibiting release of the labeled thyroid hor-

mone stored in the gland. The sample to be assayed for thyrotropic activity was then injected intravenously. The release of labeled hormone from the thyroid was manifested by a rise in blood radioactivity; this was expressed as percentage of the pre-injection level and was determined at 3 and 16 hours post-injection. Adams and Purves found that the radioactivity of the blood was higher at 3 than at 16 hours after injection of TSH, but that the reverse was true after injection of the serum of some thyrotoxic patients.^{4, 5} They therefore proposed the existence of an "abnormal thyroid-stimulating hormone"⁶ in the serum of patients with thyrotoxicosis. McKenzie^{7, 8} modified the assay in 1958 using the mouse as the assay animal and changing the hours of sampling. Other than improvement in statistical evaluation of the results, the assay technic has since remained unchanged.^{9, 10} In 1960, at the Fourth International Goiter Conference in London, the term "long-acting thyroid stimulator," LATS, was adopted to describe the factor responsible for this assay phenomenon.

In figure 1, the characteristic responses to

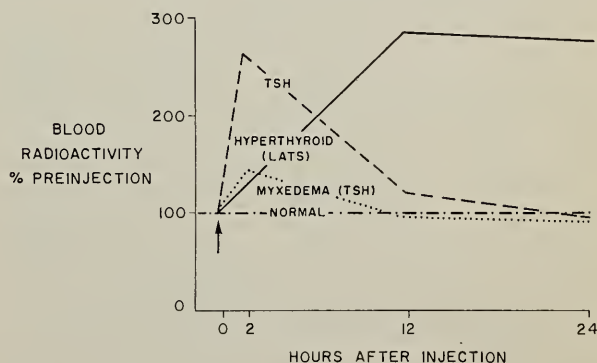


FIG. 1. Typical responses in the Adams-Purves-McKenzie assay for thyrotrophic activity. Normal levels of pituitary thyrotropin (TSH) are usually non-detectable. Myxedema serum and TSH cause a transient response, maximal at 2 hours. Graves' serum, containing LATS, yields a maximal release at 12 hours or later, and the response is sustained.

* Discussion at Medical Grand Rounds.

† From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee 37205.

TSH and LATS are represented. The injection of supraphysiologic amounts of TSH results in a rapid release of labeled hormone with a consequent rise in blood radioactivity 2 hours later. Its thyroid-stimulating effect is transient, however, and the radioactivity falls rapidly toward pre-injection values. A similar response, of lesser magnitude, is obtained after injection of the serum of a patient with untreated primary myxedema who, in the absence of the normal "negative feed-back" system, has high levels of circulating endogenous TSH. In these cases, the 2-hour level is higher than that at 12 or 24 hours. The serum of most patients with Graves' disease, however, produces a delayed, super-normal response which is sustained for 24 hours or more: thus the name "long-acting thyroid stimulator." In this assay system, the level of TSH found in normal serum is usually too low to be detected.

LATS has been found with varying frequency in the serum of patients with Graves' disease. Using crude serum, as few as 10% of thyrotoxic patients without exophthalmos in some series have positive LATS assays.¹¹ However, with suitable extraction of the serum, 85% or more of patients with Graves' disease have positive assays, while the serum of only a few per cent of normal subjects or patients with other thyroid diseases give positive results. The highest percentage of positive assays—and some of the highest titers—are found in patients who have both exophthalmos and pretibial myxedema.¹²⁻¹⁴

The delayed, supernormal response of LATS can be mimicked by the prolonged administration of TSH. The question then naturally arises: Is "LATS" actually an altered TSH, or TSH somehow protected from metabolic degradation so that its biologic half-life is prolonged? There are several lines of evidence to indicate that LATS has an inherent thyroid-stimulating activity and does not bind or alter TSH (Table 1). LATS has been found in the serum of a small number of patients who have had both Graves' disease and hypopituitarism.¹⁵⁻¹⁷ TSH is not present in the serum of such patients. Only TSH is recovered from the pituitaries of patients with Graves' disease who are known to have LATS activ-

Table 1

EVIDENCE THAT LONG-ACTING THYROID STIMULATOR (LATS) IS NEITHER ALTERED NOR ABNORMALLY-BOUND PITUITARY THYROTROPIN (TSH)

1. LATS is found in serum by hypophysectomized patients.
 2. LATS is not found in pituitaries of normal subjects or patients with Graves' disease.
 3. LATS and TSH summate their effects when injected into assay animals simultaneously.
 4. LATS is not suppressed by thyroxine "negative feed-back" mechanism.
 5. LATS and TSH may coexist in the same serum.
 6. Normally pituitary TSH secretion control persists in the presence of LATS.
-

ity in their serum.¹⁸ Furthermore, the effects of TSH and LATS summate in the assay system, giving both an early and a late response when injected simultaneously,^{6, 19} indicating that the added TSH, at least, is not bound or altered. LATS is not subject to the usual "negative feed-back" influence of thyroxine, and thus remains in the serum in undiminished concentration when the PBI is elevated and TSH secretion is totally suppressed.^{6, 17, 20-22} In patients with Graves' disease who have been rendered hypothyroid as the result of therapy, TSH and LATS coexist in the serum.^{23, 24} The TSH is normally suppressible by administration of thyroid hormone, while the LATS is not. Thus there is no defect in the control of pituitary TSH secretion in these individuals.²³ LATS acts directly on the thyroid of the assay animal, as evidenced by the fact that its effect is unaltered in hypophysectomized animals.^{19, 25}

In this bioassay procedure, however, only an increase in blood radioactivity is measured. One might reasonably ask if this is, in fact, a reflection of increased thyroidal activity. Table 2 lists some of the evidence that LATS does stimulate the thyroid. In addition to causing release of I¹³¹ by the thyroid, it also increases thyroidal uptake of radioactive iodine.²⁶ This effect is similarly delayed, with maximal uptake observed 12 hours after injection of LATS versus 4 hours for TSH. The protein-bound iodine (PBI) levels are also enhanced.²⁶ Histologically, LATS-containing serum causes increased height of thyroid acinar cell, and an

Table 2

EVIDENCE THAT LONG-ACTING THYROID STIMULATOR (LATS) CAUSES INCREASED THYROID ACTIVITY

- LATS: 1. Causes release of I^{131} from the thyroid.
 2. Causes increased I^{131} uptake by the thyroid.
 3. Causes increase in protein-bound iodine (PBI).
 4. Causes increased acinar cell height.
 5. Causes increased apical acinar cell vacuolization.
 6. Causes resorption of colloid.

increase in apical vacuolization which is thought to represent pinocytosis of colloid in preparation for subsequent release of thyroxine. Resorption of the colloid is also manifested by its decreased staining intensity.²⁶ These morphologic changes have been employed in earlier bioassays as indices of thyrotropic activity.

The objection might then be raised that these phenomena have only been observed in guinea pigs and mice, and that the results might not be applicable to man. Evidence to support the argument that LATS has a similar thyroid-stimulating effect in man has recently been offered by Arnaud et al.,²⁷ who infused plasma from patients with Graves' disease, and others with myxedema, into normal human subjects who had been given single 200 μ c dose of radioactive iodine. The results were similar to those observed in assay animals. Figure 2 represents the type of responses reported by Arnaud. Bovine TSH in supraphysiologic dosage caused a maximal rise at 9 hours, as did serum from a patient with myxedema. After injection of serum from a patient with Graves' disease, made euthyroid with anti-thyroid drugs, a delayed response, maximal at 2 days, was observed and was thought to be due to LATS. When this same patient was subsequently rendered hypothyroid by I^{131} therapy, his serum gave both an early and a late response, suggesting the presence of both TSH and LATS.

The numerous recent investigations into the identity of LATS have clearly demonstrated that it is a substance quite distinct from TSH. In addition to its prolonged circulating half-life, a matter of several hours to more than two weeks^{3, 18-20, 23, 28-32} as compared with a matter of minutes for

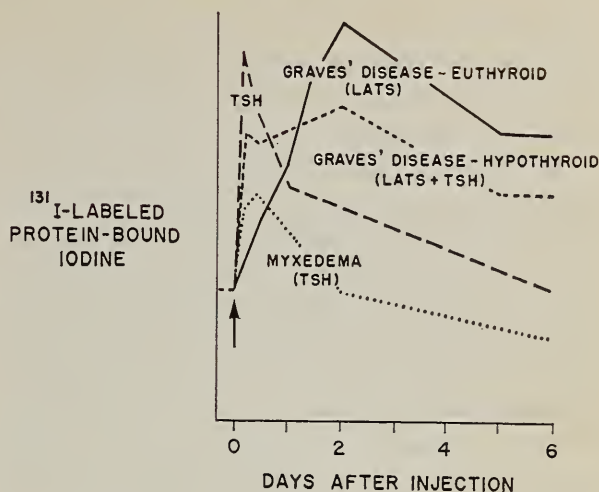


FIG. 2. Type of response reported by Arnaud et al.²⁷ in normal human subjects injected with serum from myxedematous patients and patients with Graves' disease. PBI¹³¹ is corrected for excretion and decay. Bovine TSH and myxedema serum cause transient rise, maximal at 9 hours. LATS causes delayed, sustained response, maximal at 2 days. In Graves' patient rendered hypothyroid, both early (TSH) and delayed (LATS) response are observed.

TSH²⁰⁻²⁹—which accounts for its sustained effect on the thyroid—LATS has been found to differ, physiologically, physicochemically, and immunologically from TSH. Table 3

Table 3

DIFFERENCES BETWEEN LONG-ACTING THYROID STIMULATOR (LATS) AND THYROTROPIN (TSH)

Physiologic:

- LATS: 1. Has a longer circulating half-life.
 2. Has a sustained effect on thyroid function.
 3. Is not suppressed by thyroxine "negative feed-back."

Physicochemical:

- LATS: 1. Is not recovered by alcohol percolation.
 2. Is precipitated by trichloroacetic acid.
 3. Is less heat-stable.
 4. Is resistant to proteolytic enzymes.

Immunologic:

- LATS: 1. Is neutralized by anti gamma globulin antibodies.
 2. Is not neutralized by anti-TSH antibodies.

summarizes these distinctions. Its unique prolonged stimulation of thyroid activity, its longer circulating half-life, and its non-suppressibility by thyroxine "negative feed-back" have already been mentioned. Physicochemically, no LATS activity is re-

covered in the standard alcohol percolation method of Bates, Garrison, and Howard³³ for the extraction of TSH. Unlike TSH, LATS is precipitated by 10% trichloroacetic acid and is almost totally inactivated by heating to 70°C for 10 minutes.²⁸ Finally, LATS is almost totally resistant to proteolytic hydrolysis with a variety of enzymes, whereas TSH is readily inactivated.³⁴⁻³⁸ Immunologically, LATS activity is neutralized by antibodies to human gamma globulin, while that of TSH is not.^{39, 40} Antibodies to bovine TSH, on the other hand, which neutralize bovine and human TSH, are not effective in inhibiting LATS activity.⁴¹⁻⁴⁴

Having found that LATS is a substance distinct from TSH, investigators focused their attention on the question of its identity and origin. It became increasingly apparent that LATS was inseparable from the serum gamma globulins.^{20, 34, 35, 39} Kriss, Pleshakov and Chien³⁹ concentrated the LATS activity by acid-salt precipitation and chromatography on diethylaminoethyl (DEAE) cellulose. After subjecting this purified LATS to paper electrophoresis, immunoelectrophoresis, Ouchterlony double diffusion in agar, and ultracentrifugation, they concluded that it is a "single protein component having the characteristics of 7S gamma globulin." Miyai and Werner⁴⁵ concentrated LATS 30 to 37-fold by column chromatography first on DEAE-cellulose and then on carboxymethyl cellulose. Immunoelectrophoretic analysis of this LATS-globulin fraction indicated that it was gamma_g-globulin. Neutralization experiments revealed that the LATS activity was almost completely neutralized by antibodies to human gamma_g-globulin, but was not affected by antibodies to human gamma_a- or gamma_m-globulin. Meek, Jones, Lewis and Vanderlaan³⁴ reduced the LATS globulin to its heavy (H) and light (L) chains by treating it with mercaptoethanol and iodoacetamide⁴⁶ and found that the H chain retained all of the thyroid-stimulating activity. Papain digestion yielded 3 subunits, with all of the activity retained in Fraction I, which contains a part of the H chain. These findings have not been confirmed by other investigators. Dorrington, Munro and Carneiro⁴⁷ found that exposure of the re-

duced, alkylated gamma globulin to acid, as is required in the isolation of the H and L chains, resulted in the loss of almost all LATS activity. The very slight residual activity was, however, associated with the H chain. McKenzie³⁷ found no thyroid-stimulating activity in either the isolated H or L chain, though a mixture of the two retained some activity. The results of papain hydrolysis are also disputed. Kriss and associates³⁹ found no activity after prolonged hydrolysis with this enzyme, but McKenzie^{36, 37} found that activity was retained despite extensive hydrolysis. Moreover, he recovered an active 3.5S moiety after pancreatin hydrolysis.³⁷

The gamma_g-globulins are generally thought of as being "antibodies," and are produced by the lymphoid tissues. McKenzie and Gordon^{44, 48} have cultured the lymphocytes of a patient with Graves' disease *in vitro*, and, under the stimulation of phytohemagglutinin, have recovered LATS from the incubation medium for up to 6 successive days. When mixed C¹⁴-amino acids were added, the LATS became labeled with C¹⁴, indicating that the LATS was synthesized *in vitro*.

LATS appears, then to be a gamma_g-globulin, synthesized by the lymphoid tissues, which has a direct thyroid-stimulating activity. The active site in the globulin molecule has not yet been precisely defined. If LATS is an "antibody," it is unique in that it mimics the action of a trophic hormone. The clinical association of Graves' disease with the various "autoimmune" diseases is well-known, and the observation that thymectomy is occasionally followed by a remission of the disease was made by Kocher and Halsted a half-century ago.⁴⁹⁻⁵⁰ The stimulus to the production of LATS, however, is unknown. Studies of the mechanism of action of LATS are in progress. Immunofluorescence studies indicate that LATS, like TSH, attaches on or in the nucleus of the thyroid acinar cell.³⁹ When LATS is incubated with subcellular fractions of the thyroid, it binds to the microsomal fraction.^{51, 52} Beyond this, its mode of action is not known.

The discovery of LATS has at least given us an explanation for the thyroid function

of Graves' disease. In the normal individual, the familiar "negative feed-back" mode of control prevails (Fig. 3). TSH stim-

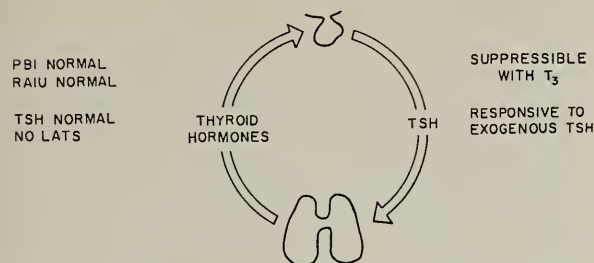


FIG. 3. Normal thyroid-pituitary functional relationships. Thyrotropin (TSH) stimulates synthesis and release of thyroid hormones. The thyroid hormones exert a "negative feed-back" control on TSH secretion by the pituitary.

ulates the production and release of thyroid hormones, triiodothyronine (T₃) and thyroxine (T₄). The elevated concentration of thyroid hormones in the blood suppresses pituitary secretion of TSH, and as its trophic influence is removed, the production of thyroid hormones falls. As the level of circulating thyroid hormone decreases, the inhibition of TSH secretion disappears, and TSH is again elaborated. In the normal individual one can suppress TSH secretion with exogenous thyroid hormone and detect this by the fall in the radioactive iodine uptake (RAIU) by the gland. Conversely, administration of exogenous TSH (Thytropar, Armour) causes an increase in the RAIU and in the PBI.

Now let us examine the situation in Graves' disease. As shown diagrammatically in figure 4, lymphoid tissues produce a gamma-globulin, referred to as LATS, which

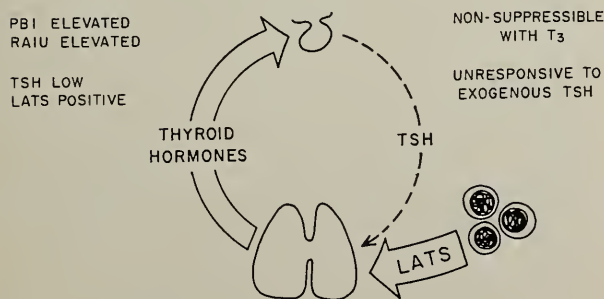


FIG. 4. Thyroid function in Graves' disease. Long-acting thyroid stimulator (LATS) is non-suppressible by thyroid hormones. Prolonged trophic stimulus by LATS causes diffuse goiter and increased secretion of thyroid hormones, which suppress pituitary secretion of TSH.

acts upon the thyroid to stimulate production of thyroid hormone. Since the level of circulating thyroid hormone (PBI) is elevated, the secretion of TSH by the pituitary is restrained. Consequently, TSH levels are low.^{53, 54} LATS assays are usually positive. When the patient is given exogenous triiodothyronine, the LATS, which is not under negative feed-back control, is not suppressed and the RAIU is unchanged. Since the thyroid is already maximally stimulated by LATS, moreover, the administration of exogenous TSH does not enhance the already elevated RAIU.

There are two interesting variants of Graves' disease which bear mentioning. The first is "Graves' disease without hyperthyroidism."⁵⁵ In this syndrome, the patient has exophthalmos and has LATS in his serum, but is euthyroid. It was difficult to understand how a patient with a potent, nonsuppressible thyrotropic substance in his plasma could be euthyroid until Liddle, Heyssel and McKenzie⁵⁵ demonstrated that these patients had "limited thyroid reserve" (Fig. 5). Because of a lesion of the thyroid,

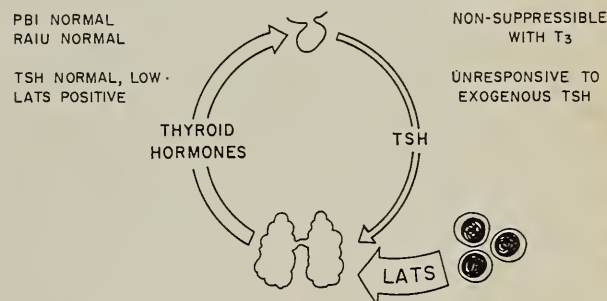


FIG. 5. Diagram of thyroid in "Graves' disease without hyperthyroidism"⁵⁵. Thyroid lesion prevents secretion of more than normal amounts of thyroid hormone even under prolonged maximal stimulation by LATS: "limited thyroid reserve." TSH levels are normal or low.

the gland is unable to manufacture super-normal amounts of thyroid hormone even under maximal stimulation by LATS. This can be demonstrated by the fact that their RAIU cannot be further stimulated by the injection of exogenous TSH; nor, on the other hand, can it be suppressed with triiodothyronine. Thus these patients happen to have normal baseline thyroid studies, but have distinctly abnormal tests of thyroid dynamics.

The second interesting variant is neonatal Graves' disease.^{31, 32, 56} Occasionally women with Graves' disease and high LATS titers have given birth to infants who have goiter, exophthalmos, and hyperthyroidism. LATS has been detectable in their blood at birth. This syndrome apparently is caused by passive transfer of LATS, like other gamma_g-globulins, across the placental membranes, since the level of LATS in the infant's serum decreases to undetectable levels over a period of several weeks. As LATS disappears, the manifestations of thyrotoxicosis disappear as well.

While there remain many questions to be answered in the intriguing syndrome of Graves' disease, the discovery of LATS-globulin and its stimulatory effect upon the thyroid gland has provided us with both a unique example of an immunoglobulin with a hormonal action and a rational explanation for the abnormal thyroid function observed in this disorder.

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CLINICOPATHOLOGIC CONFERENCE

Cryptococcic Meningo-Encephalitis

Present Illness: This 69 year old white lumber inspector was admitted with complaints of headache and vomiting.

Two weeks prior to admission, while gardening, he had rather sudden onset of occipital headache accompanied by unsteadiness and vomiting. There had been intermittent vomiting since onset. During the 2 weeks period there had been some mental confusion and memory loss. The patient slept most of the time and was lethargic. While no evidence of paralysis was noticed, he did stagger while walking and had bladder incontinence. He consulted a physician and was given some capsules. Two days prior to admission the patient slipped and fell in his bathtub and struck his head. He did not become unconscious and helped himself out of the tub. Because his condition failed to improve his wife brought him to this hospital.

He had a 10 year history of treatment for hypertension. The patient smoked one package of cigarettes daily. Two brothers had diabetes.

Physical Examination: The patient was a well developed obese white man, lethargic and ataxic. He answered questions but fell asleep while talking. He had difficulty in hearing. The P. was 90, T. 100.4, R. 18, and B.P. 180/100. There was slight nuchal rigidity noted. The heart sounds were of good quality with no murmurs being present. The P.M.I. was in the 6th intercostal space to the left of the midclavicular line. Lungs were clear but breath sounds were distant. The chest was symmetrical and excursions were normal. The pupils reacted to light and on accommodation; the fundi could not be visualized satisfactorily. The abdomen was soft and the liver and spleen were not palpable. Deep tendon reflexes were hyperactive but symmetrical. The finger-to-nose and heel-to-toe maneuvers were poorly performed. There was no lymphadenopathy. Rectal examination was normal with sphincter tone being good.

Laboratory Data: On admission, the Hgb. 15 Gm., HCT. 48%, WBC. count 16,000 with 91% neutrophils, 9% lymphocytes. A subsequent hemogram showed Hgb. 16 Gm., HCT. 51%, WBC. count 18,000 with 86% neutrophils, 4% bands, 4% monocytes, and 6% lymphocytes. Urinalysis was normal. VDRW. test was negative. Blood sugar was 131 mg. on admission and on fasting the same day was 112 mg. per 100 ml. BUN. was 16 mg. on admission and rose to 30 mg. per 100 ml. Initial spinal fluid was clear, the opening pressure being 350 mm. of water, closing 240, with a cell count of 2 RBC. and 200 WBC. showing 32% polys and 68%

lymphocytes. Globulin was positive with total protein of 240 mg.%. Colloidal gold and cardiolipin tests on spinal fluid were negative. Another spinal tap had an opening pressure of 450 mm. with total protein of 60 mg.% and 50 WBC. with 45% polys and 35% lymphocytes. CO₂ was 22 mEq/L and chlorides 98 mEq/L.

X-ray: Chest film showed the heart slightly enlarged. The lung fields were clear except for overall accentuation of bronchovascular markings. The skull film showed the cranial vault intact. There was some asymmetry of the petrous ridges and a suggestion of calcification above the sella turcica and in the temporoparietal region. What may have been the pineal was slightly shifted to the right. Ventriculogram showed satisfactory filling of the ventricles with no evidence of shift.

An EKG revealed ST segment changes suggestive of myocardial ischemia.

Hospital Course: The patient was admitted to the Medical Service where his condition became worse and he became comatose on the 3rd day. He was transferred to the Neurosurgical Service. Parietal burr holes were made, and when the dura on the right was opened, the substance of the brain appeared to be under considerable pressure and a small amount exuded through the hole. The ventricular fluid was slightly cloudy and under considerable pressure. A tracheostomy was also performed. Several hours after this, on the 6th hospital day, he expired.

Clinical Discussion

DR. NELSON: If I may, I would like to approach the problem today in three basic parts. Let me first summarize and discuss in general the patient's clinical findings, then the laboratory findings, and finally the x-ray findings. We have a formerly healthy 69 year old man who was ill only about 20 days. There is a history that he had hypertension for 10 years and that he smoked a pack of cigarettes daily; there is a family history of diabetes. I think it is reasonable, however, to doubt that he had many, if any, premonitory symptoms until the day when he was working in the garden and noted headache, vomiting, and difficulty in walking. The protocol gives the onset as being rather sudden. There was no definite evidence from either the history or physical examination of a lateralizing type of incoordination or weakness. He did have signs of mental disturbance, described here as mental confusion, memory loss, and lethargy, and this was his course for two weeks. There was a progression of the mental confusion following hospitalization. Mention should be made of his urinary incontinence.

From the Medical Service and Laboratory Service (J. W. Nelson, M.D. and J. M. Young, M.D.) Veterans Administration Hospital, Memphis, Tenn.

I cannot use this point as a differential feature. When people are as disturbed in consciousness as this man apparently was, urinary incontinence is not uncommon. This results from so-called "cerebral incontinence," not necessarily because of any interference with innervation of bladder either by the pyramidal tract or the autonomic nervous system or at a local level, but rather as we sometimes put it a "lack of concern." This man did have a fall, but this occurred after the onset of the illness, and did not particularly influence the course.

Let me mention also the positive neurologic abilities in contrast to the negative ones. For example, the history indicates that this man, while quite lethargic, nevertheless was able to talk. We assume that some of the history was obtained from the patient, and there is no mention of difficulty in enunciation. The fact that he was able to use language, and that he was not aphasic, indicates that the speech areas in the cortex were probably not specifically involved. Likewise, it would indicate that the effectors of speech, namely the muscles of the palate, the tongue and the larynx were intact. There is no mention, for example, of hoarseness or mush-mouth speech or nasal speech, etc. So we have to assume, from the neurologic findings that these structures are preserved. Other things which are preserved, at least initially, are the extraocular and pupillary reflexes. There is no specific mention made of other cranial nerve palsies. He tended to stagger when he walked, but there is no mention made of a specific hemiparesis, for example. The only specific cerebellar test, per se, that is given us is the finger-to-nose and heel-to-toe maneuver. This is not described in the protocol as necessarily representing ataxia. It merely states that they were poorly performed. In the absence of a positive statement, one would wonder if this merely had to do with this patient's disturbance in consciousness or lack of comprehension of the situation. Reflex examination again was apparently symmetrical, although somewhat hyperactive.

I think it is important to note, when we are dealing with a condition of the central nervous system that no mention is made of

cardiac arrhythmia or heart murmur. No signs of systemic infection or intra-abdominal condition are mentioned. We assume some other negative information from the normal rectal examination. As far as his vital signs are concerned, he does have a pulse of 90, a temperature of 100.4°, and on admission a normal respiration, and a blood pressure of 180/100. There is a suggestion from the history that there may have been some nuchal rigidity. This is difficult to evaluate in a 69 year old man who might have some cervical arthritis, but we will assume that perhaps it is on a neurologic basis. The combination of gradually progressive disturbance of consciousness, vomiting, headache, and nonspecific disturbance in coordination suggests the classic clinical picture of increased intracranial pressure of nonspecific etiology. It is not uncommon for a patient to have a posterior fossa lesion in which the only signs are those of increased intracranial pressure resulting from occlusion of ventricular outflow. A nonspecific increase in intracranial pressure from any cause also would produce this syndrome.

Let us speculate for a moment that the onset may not have been abrupt. For example, the patient may have been not "feeling well" for some time. What are some of the things which might cause a sudden increase in intracranial pressure? One possibility is bleeding from disruption of the arterial vascular system with resultant increased intracranial pressure. Another possibility is that of sudden occlusion of the ventricular outflow by something that previously was silent. Any brain tumor, for example, may "decompensate" suddenly, presumably due to obstruction of the ventricular outflow by a shift of intracranial contents. A rupture of something other than the vascular system could do this. A previously silent brain abscess, or some sort of cyst might rupture its contents into the subarachnoid space and result in an abrupt onset of symptoms. What about primary things that move around? If something were "loose," so to speak, in the ventricular system, this might result in a very abrupt increase in intracranial pressure. The most common cause of this is a colloid cyst of the third ventricle, but this is a rarity. The eye

grounds were not visualized, so we have no information of increased intracranial pressure there, but spinal punctures did confirm increased intracranial pressure. Until hospitalization, the patient did not change much. It is as though something was very stable. This, along with the fact that the patient remained unchanged for two weeks, tends to eliminate some of the above possibilities. Usually, intrapontine or intracerebellar hemorrhage terminates sooner than this or makes the patient much more ill in the beginning. Rupture of an abscess into the subarachnoid space would produce symptoms and changes faster than this. The patient would probably have had a severe overwhelming meningitis and expired unless treated quickly.

However, rupture of the contents of a tuberculous lesion, cryptococcal cyst, or craniopharyngioma into the subarachnoid space perhaps might not result in such an abrupt situation. Against a diagnosis of colloid cyst of the 3rd ventricle is the fact that this man's condition remained stable. Most patients with colloid cysts of the 3rd ventricle have headache and perhaps vomiting, with sudden changing of positions, such as bending in the garden or going around sharp turns. A posterior fossa tumor which manifested itself by a sudden relative occlusion of the ventricular system could remain stable for a while.

Is it possible for a diffuse infectious process in the central nervous system to come on this suddenly and run this course? It certainly is possible for a low grade infection, something in the nature of a fungal or tuberculous process to do this, but again I think we must hedge just a little on the history of rather abrupt onset associated with strain. An infectious process of the central nervous system that is apt to have an almost apoplectiform onset is meningococcal meningitis. Again, this is the type of illness, though, that if it started that way, one would expect it to continue at a very rapid rate. The two capsules given the patient by his family physician are a matter of speculation as to what these might be and how they could possibly confuse the issue. If he did have an onset of an infectious process of purulent nature and was given some antibiotic

which inadequately treated his condition, the course of illness might have been slowed. The stiff neck could be produced either by an infection or by a mass in the posterior fossa. It is not infrequent for a patient with a posterior fossa mass to have nuchal rigidity. Another possible cause, as we mentioned, is that of cervical arthritis.

Laboratory studies revealed a relatively normal hemoglobin and hematocrit. He does have an elevated white count and a shift to the left. This would suggest possibly that the etiology is on an infectious basis, but in a man who has been disoriented for a week and who has had urinary incontinence, it would be a little difficult to be sure that this were not due to some secondary infection. Now, nothing unusual is seen in the urine, and his blood sugar remained at a reasonable level. There is no evidence of renal disease on the basis of the BUN. We have two spinal fluid examinations which, I must say, are perhaps the most difficult for me to evaluate at the moment. Both of them reveal increased intracranial pressure. We have on the first tap 200 white cells, primarily lymphocytes, but with some polys, and on a second tap 50 white cells, more of which are polys. We have an initial spinal fluid protein of 240 mg. and a subsequent spinal fluid protein of 60 mg. Electrolyte values are not very remarkable. It would be unlikely that he would have been drinking methyl alcohol, but a clinical state like this can result from methyl alcohol. This would be unlikely in the presence of a normal Co_2 . There is another possibility in this gardener which I am going to mention only to discount—this is lead encephalopathy. This has been reported in adults, but is primarily a disease of children. If this were the case here, it would have to be the acute form, and he would have, it seems to me, more abdominal pain and other symptoms along with his vomiting. We would also expect anemia. How to interpret this situation of seemingly improving spinal fluid in regard to cells and protein is difficult. Theoretically, the finding that we had more cells and protein initially and less later would lend a little evidence for something leaking. Perhaps something did leak material into the subarachnoid space and subse-

quently close off. We need to know what spinal fluid sugar levels were. I believe if we had a value for the spinal fluid sugar, we would be able, in a patient this ill, to eliminate tuberculous meningitis or cryptococcus infection. It is true that patients with early tuberculous or cryptococcic meningitis, etc., may have normal spinal fluid sugar levels but, to the best of my knowledge, by the time they have become ill enough to exhibit many symptoms, the sugar levels are depressed. The ventricular fluid obtained at the time of operation was described as being slightly cloudy. Dr. Kaplan is here this afternoon, and I asked him, as a neurosurgeon, what he thinks about ventricular fluid being slightly cloudy. His comment was that a slight cloudiness of the ventricular fluid is seen frequently and that he discounts this unless subsequent studies reveal abnormalities.

I would like to mention a few other relatively rare conditions that might mimic this situation, just to complete the differential diagnosis. One of these is a condition which is called pseudotumor cerebri. Patients sometimes develop increased intracranial pressure for no reason that is really known. Some have tended to ascribe this to thrombosis of lateral sinus and cortical veins. Others think the cause in some cases is a serous meningitis of unknown etiology. Diffuse infiltrating gliomas can produce any picture. I would like to mention also that it is not uncommon to find cells in spinal fluid with tumors or other conditions that are not in direct communication with the spinal fluid. This syndrome is called by some neurologists "sympathetic" meningitis. If one has a hematoma or tumor near the ependyma of a ventricle or near the subarachnoid space, one may have a mild increase in cells in spinal fluid.

The third important group of findings concerns the x-rays. I am interested in looking again at the chest x-ray for signs of a process which might give us a clue to an extracranial cause which might have extended to the brain, such as miliary tuberculosis, carcinoma, etc. Since we still are considering remotely the possibility of an abscess, we would also like to see films of the mastoid

areas and sinuses. We are also interested in the calcifications that have been described.

DR. ETTMAN: The chest films are portable examinations taken two days apart. The heart is slightly enlarged; the markings are heavy. There is some haziness in the left lung base. The skull film shows the pineal shifted to the right. The sella is intact. There is some calcification in one area which could be the choroid plexus. In the comment made about erosion or asymmetry of the petrous ridges, I believe we see asymmetry very often. There is no definite evidence of erosion. The ventriculogram revealed nothing significant.

DR. NELSON: The negative information from the ventriculogram is important. This helps rule out a mass which might be occluding the outflow of the ventricular system. The 3rd ventricle is seen fairly well, which helps rule out the possibility of colloid cyst of the 3rd ventricle. Congenital stenosis of the aqueduct is likewise ruled out. Now on the positive side, the ventricles are of normal size, or smaller than normal. Often this is the cause in pseudotumor cerebri, so I do not think we can rule this out on the basis of the ventricular size. About a third or a half of these cases are described as having very small ventricles that are difficult for the neurosurgeon to tap. This sometimes suggests a diagnosis of pseudotumor cerebri. The suggestions of calcification bring up the possibility of suprasellar cyst, but I am not going to make the diagnosis, even though rupture of such a cyst could be the correct diagnosis.

I'm going to make my diagnosis tuberculous meningitis. Our diagnostic laboratory, radiological and neurosurgical procedures have helped us very little. I might as well say cryptococcus meningitis. Tuberculosis, like cryptococcosis, is a great mimicker of other diseases, and this might have been, at least early in the game, a treatable condition.

Clinical Diagnosis: Tuberculous or Cryptococcic Meningitis.

DR. YOUNG: Are there any questions or any other diagnoses?

DR. LARKIN: Were any cultures of the spinal fluid performed?

DR. YOUNG: Cultures were taken on one

of the spinal fluids, but were not reported as showing anything by the time the patient died. I am at a loss to explain why the sugar reports were not present in the record, because I feel certain they were performed.

Anatomic Findings

DR. YOUNG: At the time of autopsy this 69 year old white man was still very well developed and nourished and moderately obese. Externally he showed little of note. A few pleural adhesions were found, as the x-ray indicated, in the left chest. No fluid was present in either pleural space. The pericardial sac and peritoneal cavity showed nothing significant. The left lung weighed 450 grams and the right 500 grams. Except for a minimal amount of basal edema, they showed nothing significant. We were particularly interested, as most of you are, in establishing some primary focus in the lung from which a spreading inflammatory lesion may have originated. This we could not do. The heart was moderately enlarged, particularly the left ventricle. It weighed 500 grams. The left ventricle was 2 cm. in thickness; otherwise the heart showed nothing of note. The other organs, except for the brain, showed little except congestion. The kidneys each weighed 140 grams and microscopically showed a moderate degree of arteriolar nephrosclerosis.

When the skull was opened and the dura removed, the brain was very tight. The meninges were slightly cloudy and the brain itself, when removed, weighed 2100 grams. That is a great increase since the usual weight is about 1450 grams. There was slight clouding of the meninges along the vessels and in the convolutional folds. There was a moderate cerebellar pressure cone and marked edema throughout the brain. We, because of the slight thickening and clouding of the meninges, took several bits of meninges for fungal and tuberculous studies. Figure 1 demonstrates the microscopic appearance of the meninges and the adjacent brain. This shows a chronic meningo-encephalitis. Most of the inflammatory cells were lymphocytes. The process extended along the pia arachnoid, the Virchow-Robin spaces, and encircled the vessels. In a few areas one could find multinu-



FIG. 1. Low power view of base of brain showing chronic meningitis.

cleated giant cells and early tubercle-like lesions. Figure 2, however, is a PAS stain demonstrating the causative organism. I think Dr. Nelson is to be congratulated for reaching his conclusion in this case. This

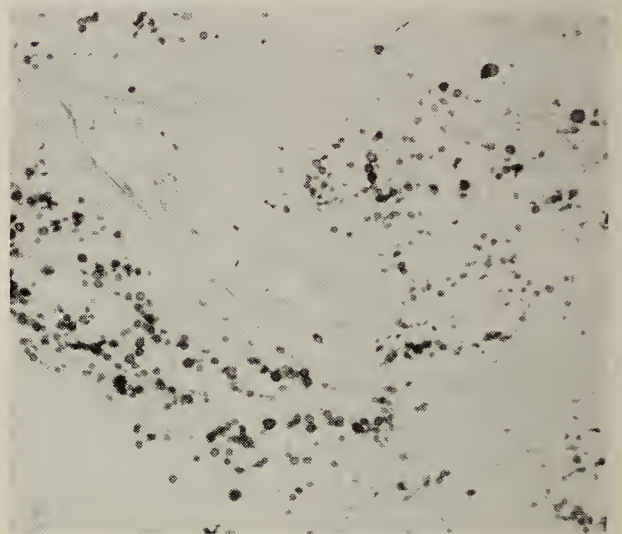


FIG. 2. PAS stain revealing organisms of *Cryptococcus neoformans* in the exudate.

turns out to be a case of cryptococcal meningitis. We were not enough aware of this at the time when we sectioned the brain to look, very closely for a torula granuloma, say in the choroid plexus, where they will sometimes occur, or the tuberculoma type lesion. I think it is quite possible that the mechanism Dr. Nelson mentioned of a cyst or a lesion rupturing into the ventricular space or into the subarachnoid space somewhere on the surface of the brain could have

produced a rather sudden onset. This happens in tuberculous meningitis. About 10% of the cases of cryptococcosis will have lesions remain localized in the lungs. Certainly the most dramatic picture of this process is involvement of the central nervous system. About two-thirds of those with central nervous system involvement die rather rapidly and follow a course more or less similar to the one that our case did follow. Cultures of spinal fluid for bacteria were negative, but we grew *Cryptococcus neoformans* from the meninges. Mouse studies showed it to be pathogenic, also.

DR. DIETRICH: Do you think this man died primarily because of the pressure on the medulla?

DR. YOUNG: I think so, Dr. Dietrich, and whether it was due to a block from the inflammatory process or whether it was due to disturbed dynamics following the two spinal taps, I cannot say. I think this is something we all have to think about. How do you feel about spinal taps in the face of increased pressure, Dr. Nelson?

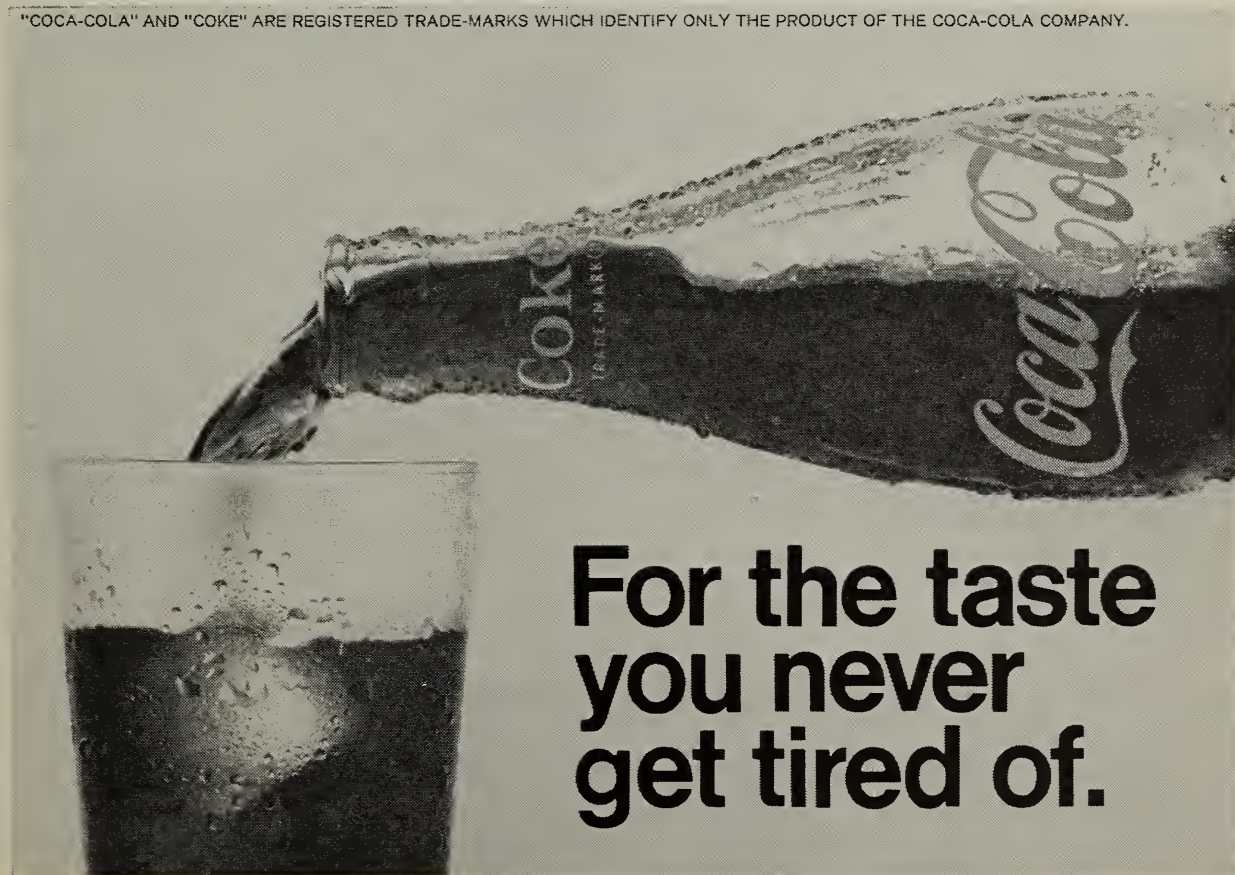
DR. NELSON: It would be hard to see much more than coincidence with this amount of pressure. The man did stay relatively stable for two weeks. We don't know from the wife whether he really did change much or whether she was just concerned that he was getting no better. Even in a diffuse process, an interference with dynamics by spinal puncture can change the situation greatly. The mechanism here may have been an interference with absorption of spinal fluid rather than a blockage.

DR. YOUNG: That may well be, though the exudate is not nearly as extensive as you might expect in such a situation. Unless a significant area is covered by an exudate, I doubt that the absorption mechanism was at fault. Spinal taps in the face of increased pressure can give drastic results. Remember that spinal fluid often continues to leak through the puncture wound in the dura.

Final Anatomic Diagnoses: Cryptococcal meningo-encephalitis.

* * *

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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

SUMMARY OF ACTIONS OF THE AMA HOUSE OF DELEGATES November 27-30, 1966—Las Vegas, Nevada

Major Actions

● Education for family practice, billing and certification procedures under Public Law 89-97, proposed revisions of the Selective Service System, payments for professional services, compensation for house officers, and use of the terms "ethical" and "unethical" were among the major subjects acted upon by the House of Delegates at AMA's 20th Clinical Convention in Las Vegas. Dr. Charles L. Hudson, AMA president, said at the opening session of the House that the need to improve existing services and establish new services for the total population should be a "top priority" of the medical profession. Registration reached a total of 11,226, which was a record high for an AMA Clinical Convention, and included 4,574 physicians.

Education for Family Practice

● The House of Delegates endorsed the recommendations of the Ad Hoc Committee on Education for Family Practice and authorized the Council on Medical Education to develop and initiate plans for their implementation. The report contained the following recommendations: (1) Major efforts should be instituted to encourage the development of new programs for the education of large numbers of family physicians for the future. The programs should relate to all levels of medical education, including pre-medical preparation, medical school education, internship and residency training, and continuing medical education. The programs should stress excellence and flexibility to meet the needs and interests of individual physicians. (2) Medical schools and teaching hospitals should be urged to explore the possibility of developing models of family practice, in cooperation with the practicing profession. (3) New sources of financial assistance should be developed for the support of family practice teaching programs. (4) Recognition and status equivalent to other medical specialties should be given to family practice. An appropriate system of specialty certification should be provided for those who have completed approved educational programs and demonstrated their competence as family physicians. (5) Attention should be given to other factors which should make the environment for family practice more favorable and serve as incentives to medical students and young physicians to enter this field. (6) Study should be made of the effect of pre-medical programs and the admission procedures, curricula and student evaluation policies of medical schools upon the production of family physicians.

Delegates and other AMA members also attended an open hearing on the report of the Citizens Commission on Graduate Medical Education. This report is under study by the AMA Board of Trustees and the Council on Medical Education.

Public Law 89-97 (Medicare)

● The House adopted a resolution urging that the American Medical Association advise the Department of Health, Education and Welfare that the present requirements for certifica-

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89th Congress graded

● The U. S. Chamber of Commerce has published a summary of ratings of the U. S. House of Representatives and the U. S. Senate made following adjournment of the 89th Congress.

As part of their legislative programs, several major national organizations evaluate the Congress of the United States. Each organization chooses a number of record votes on what it considers key issues. In various ways, "right" or "wrong" votes are attributed to each member of the Congress. Each organization's tabulations are printed collectively by Congressional Quarterly.

The three organizations that have evaluated the 89th Congress are: Americans for Constitutional Action, Americans for Democratic Action and AFL-CIO Committee on Political Education.

Americans for Constitutional Action (ACA) evaluates votes which, in its opinion, "have a significant bearing on the preservation of the spirit and principle of the Constitution, as these were defined by the Founding Fathers of our Republic." The ACA rating is cumulative and covers the individual Senate member's record since 1955 or since the date of the first term served. For House members they commence in 1957 or with the first term served.

Americans for Democratic Action (ADA) evaluates votes in terms of what it considers to be liberal policies and its ratings are derived from selected House and Senate roll call votes. The organization refers to its ratings as the "Liberal Quotient," which it defines as "a measure of the liberalism of a member of Congress determined by the percentage of his votes in harmony with liberal policies."

ADA cautions users of its "Liberal Quotient" scores that "judgments cannot be made in statistics or percentages; they require the use of other yardsticks and careful scrutiny on an individual basis of the capabilities of legislators." ADA ratings are derived from votes cast during the First Session of the 89th Congress.

AFL-CIO Committee on Political Education (COPE) evaluates votes as "right" or "wrong" in terms of how they conform to AFL-CIO policies. They are cumulative ratings for both Houses derived from the individual Member's length of service since 1947. Members elected after 1947 are scored since their first year in Congress. The COPE ratings end with the second session of the 89th Congress. The COPE ratings are unofficial, the percentages having been calculated by the Chamber from official AFL-CIO COPE voting records of the 89th Congress.

<u>Senator or Representative</u>	<u>Percentage Vote Record</u>		
	<u>ACA</u>	<u>ADA</u>	<u>COPE</u>
Ross Bass (D)	4	76	83
Albert Gore (D)	16	65	78
James Quillen (R)	95	0	4
John Duncan (R)	96	0	0
Bill Brock (R)	89	0	0
Joe Evins (D)	22	42	68
Dick Fulton (D)	2	63	96
William Anderson (D)	8	68	100
Tom Murray (D)	57	5	27
Robert Everett (D)	25	32	52
George Grider (D)	0	74	85

President's Page

AMA Clinical Meeting, Las Vegas, Nevada



DR. HUBBARD

Since TMA pays my expenses to the AMA Clinical Meeting, I feel that you as a member are entitled to a report. I will confine my remarks to the AMA's activities from 7:00 a.m. to 5:00 p.m. and leave to your imagination about my activities during the rest of my time. Needless to mention, the environment is conducive to "chance" at all times.

The members of the House of Delegates spent many hours trying to define the terms "usual and customary" as they apply to our fees. I could have told the delegates that in Tennessee we know, and our carriers know what we are talking about and it is unnecessary to define these terms—since it is the application that counts.

Everyone was disturbed because patients could not be reimbursed with payments for medical care made by the patient to the provider of services under Title XIX of Public Law 89-97. This pertains to the Federal law enacted in 1935, and if this is changed it will call for an amendment to the Social Security Act to include Title XIX. We in Tennessee support the direct billing option and are supporting the proposed amendment.

Certification and recertification remains in everybody's mind as being highly objectionable, unnecessary, and does not contribute to the quality of medical care. We are working for the repeal of this portion of Public Law 89-97.

At the AMA clinical session there was again adopted a resolution opposing the practice of determining the rate of payment for a physician solely on the basis of his type of practice. This is sometimes called dual fees. AMA and TMA endorse the concept of usual and customary fees in payment for physicians services.

In 1964, an ad hoc committee on education for family practice was appointed and the committee's report was included in report A of the Council on Medical Education. This is a monumental report of the ad hoc committee and it should be studied by every member of the TMA. The House of Delegates adopted the recommendation of the ad hoc committee and urged the Council on Medical Education to develop and initiate plans for implementation.

The "Millis" report concerns the graduate education of physicians. The reference committee urged that every physician and each state and county medical society study the report carefully.

These two reports can be obtained from the American Medical Association.

Dr. Bland Cannon, Memphis, is a member of the Council on Medical Education. He is more knowledgeable about the ad hoc committee's report on Education for Family Practice and the "Millis" report than anyone else in our state. We are hoping that we may be able to arrange with Dr. Cannon for discussion of these two important reports at our annual meeting in April of 1967.

I vote for returning to "lost wages," Nevada, but the "powers that be" say that we will not return because the physicians' image could be damaged by inference of association.

A large, stylized cursive signature that reads "B. Hubbard". The signature is written in dark ink and has a long, sweeping underline that extends to the left and then curves back under the word "President".

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-4211, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn.

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JANUARY, 1967

EDITORIAL

"EDUCATION FOR FAMILY PRACTICE"

On his page, the Executive Director reviews the recommendations of the Ad Hoc Committee on Education for Family Practice as endorsed by the House of Delegates, and the authorization of the Council on Medical Education to develop plans for their implementation. In addition to these recommendations, I have read both the report of the Ad Hoc Committee and the report of the Citizens Commission on Graduate Medical Education (the "Millis Report"), reports which complement each other and overlap in many areas.^{1,2}

I view these recommendations with mixed thoughts. It is unnecessary to comment again upon the important role of the general practitioner in the provision of medical care for the people of Tennessee.³ To do so would be repetitious for not only have these pages offered support to this role a number of times but, in addition, I personally, as Director of Continuing Education of Vanderbilt University School of Medicine have aided the ongoing postgrad-

uate programs of two chapters of the AAGP over the past ten years to the best of my ability. So too, on these pages and elsewhere, I have emphasized the need for comprehensive medical care and especially of its facet which has to do with preventive medicine.^{4,5}

Nevertheless one must take a realistic look at what is proposed and project a "guarded prognosis." Having begun as a general practitioner more than forty years ago, and having lived through the scientific advances in the intervening years, I am aware of difficulties which must be overcome for a successful implementation of the recommendations which have been advanced. The whole matter is exceedingly complex and raises a question as to whether a new specialty can either be defined or be established "out of the blue."

To be a successful family physician is a *state of mind*—an interest in medicine and people, and especially what "makes them tick." This interest almost of necessity must be inherent and may show itself in a surgeon, an obstetrician, an internist, or a pediatrician, as well as in a general practitioner, but is not likely to be the result of a directed educational effort alone. This *state of mind* may exist despite the personality traits which influences the selection of a specialty—the "doing," characteristic of surgeons, or the "evaluating," characteristic of medical specialists.⁶

¹ Report of the Ad Hoc Committee on Education for Family Practice of the Council of Medical Education, A.M.A. (Sept.) 1966.

² Report of the Citizen's Commission on Graduate Medical Education, A.M.A., 1966.

³ Editorials: Physicians and Medical Care, J. Tennessee M.A. 43:291, 1950; The Postgraduate Education of the General Practitioner, *ibid.* 43:376, 1950.

⁴ Editorials: Changes Needed in Undergraduate Clinical Teaching, *South. Med. J.* 48:320, 1955; What Is the Purpose of the Medical Education, *ibid.* 50:118, 1957; Graduate Education for General Practice, *ibid.* 50:1194, 1957; Family Practice—its Future, *ibid.* 57:231, 1964.

⁵ Kampmeier, R. H.: Continuing Education—A Look into the Future, Tennessee GP, Fourth Quarter: 14, 1965.

⁶ Bruhn, John G. and Parsons, Oscar A.: Medical Student Attitudes Toward Four Medical Specialties, J. Med. Educ. 39:40, 1964. Attitudes Toward Medical Specialties; Two Follow-Up Studies, *ibid.* 40:273, 1965.

This aspect of personality traits itself needs to be faced in the hope of attracting students to a new specialty of family practice. One learns from medical students and interns of at least one reason why fewer are entering general practice. They recognize that opportunities to practice surgery are becoming increasingly more circumscribed for a variety of reasons unless specialty training is completed. These facts have eliminated many from entering general practice after a couple of years of hospital training.* Such potential candidates say, "I want to do surgery but know that in ten years it will not be possible for me to do it in general practice, so I am going for a specialty."

The student entering medicine today is culturally more sophisticated. Increasingly he comes from an urban and larger cultural background. This strongly influences him toward specialized knowledge, much more than his father who may have come from a rural background which, by and large, may have been quite barren culturally in the childhood of half a century ago. General practice commonly connotes practice in a small community (it should not necessarily, but the fact remains that most city dwellers choose their own specialists). Recent graduates and especially their wives object to raising their children in a "small town" deprived, they allege, of the cultural advantages of the city. This strongly influences the choice of a specialty. One cannot but wonder whether the proposed new specialty will take root in an urban environment.

The impact of medical knowledge upon the type of person who chooses medicine as a career is to my mind predictable, but difficult to define in a few words. From a half dozen years on the committee choosing students for a medical school, from interviewing in private for an hour each a hundred students more or less, and following the careers of hundreds of medical students after graduation, one conclusion remains unshakeable in my mind. The potentially good doctor, as an undergraduate, or the finished good doctor has within him

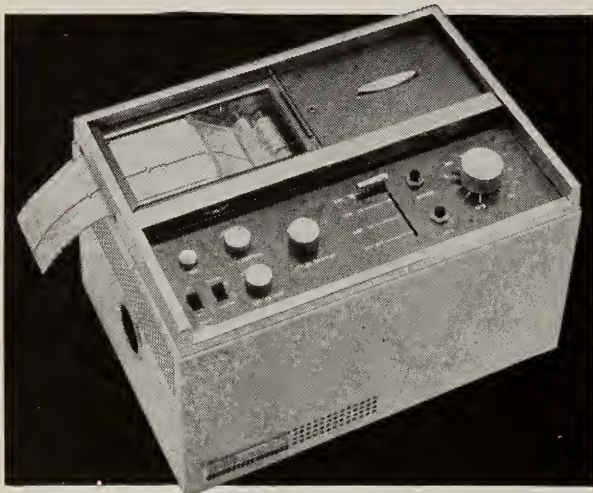
an extremely large element of scientific or medical curiosity. The practitioner often does not recognize this characteristic within himself but it can be discerned as he asks for a "curbstone" consultation at a medical or a social gathering—*good* doctor in the sense of interest in what makes people sick, what makes them get well, and what makes them "tick." Commonly the potential medical student upon interview thinks he must demonstrate that he is a "do-gooder" and "that he wishes to help people." If this is his major motivating force without a high admixture of the other ingredient, he will be a *poor* doctor—too insecure and too likely to become emotionally involved to function effectively. What has this to do with the subject at hand?

When I received my M.D. Degree forty-three years ago, the sum total of medical knowledge was so circumscribed it was almost universally encompassed in every graduate from whatever school. Specialization to a great degree represented then the acquisition of special *skills*—i.e. in the main, surgical techniques, specialized *knowledge* being acquired by experience. One's life then could be satisfying in general practice for one's basic fund of knowledge was as great as that of the "self-made specialist" or even the specialist trained as such (in skills). The intervening years have witnessed a complete reversal of this situation. Involvement in recent years in the educational program of a community hospital offered me a revealing experience. Over a number of years, I found that though almost all of those entering this rotating internship had as an objective general practice, the majority of these young men came to me before the year was out requesting alteration of rotations to meet certain interests which they had developed, and seeking my advice in regard to a residency in some field or other—*not general practice*. My curiosity always led me to probe in depth for this change of heart in a *non-academic climate* with no full-time faculty as a possible scapegoat. (For years medical educators have been the scapegoat for the decreasing numbers of general practitioners, accused of subverting or brainwashing undergraduate students to enter specialty practice. This is the exception!) The an-

*This seems to be borne out by a survey done by the University of Tennessee College of Medicine, J. Tennessee M.A. 58:64, 1965.



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swer was simple and universal and can be paraphrased collectively as, "There is so much to know that I would be unhappy in my ignorance and would feel I could not do a good job as a doctor. I want to know something well so I can do a good job." This is the essence of specialization and its excuse, grasped by every intern in a rotating internship. To be sure this represents to a large sense also an insecurity, a slip of tongue once expressed within my hearing by a nationally known figure, who said in effect, "You have no idea how secure I feel in recognizing my knowledge in one area and am thus able to admit my ignorance of all other matters and refer them to my colleagues." How different than forty years ago when all physicians had the same basic knowledge!

In the hope of meeting the problem just outlined the Ad Hoc Committee and the "Millis Report" suggest that residencies be tailored to provide training for family practice and certification to provide status, to entice candidates into the new specialty. The ground of the proposed residency was thoroughly plowed for two years by the Committee on Preparation for General Practice under the chairmanship of Dr. Weiskotten, of the Council of Medical Education, and on which I had the pleasure to serve as a representative of the Association of American Medical Colleges. The report went to the House of Delegates in 1959.⁷ It is my fervent hope that the currently suggested residencies for family practice will be more successful than the prototypes set up a half dozen years ago. Under a different name, hopefully they will be more attractive.

The upshot of all this is, that knowing medical students and house officers over four decades, I have reservations about the probability of changing by fiat the inherent characteristics and personality traits of those who choose medicine as a career. The expansion of medical knowledge will only enhance what has facetiously been defined as specialism—"a knowing of more and more about less and less"!

The saving grace of the medical profes-

⁷ Final Report on Preparation for Family Practice: Report of the Committee on Preparation for General Practice, A.M.A., (June) 1959.

sion and thus good medical care is dependent upon the cultivation of the inherent traits of most entering upon a medical career and which will make a good family practitioner out of the majority of graduates (other than possibly those few who truly have that rare spark to contribute to scientific knowledge) irrespective of his specialty.⁸ Here the medical school is at fault, recognized currently by curricular experimentation. One's recollection reveals that with the growth of specialization and the need for consideration in depth, teaching has become very compartmented. Just as grade school education today is exploiting the amazing latent potential of the child's mind as never before, so the medical student's mind has a limitless potential in grasping principles and concepts in breadth, with variations in depth dependent upon special aptitudes. Breadth can be attained for the medical student at only little expense to depth which can be made up at the graduate level. For years many of us have considered the doleful effect of specialization in full-time faculties, essential to research and medical progress, but all too often characterized by the slip of the tongue quoted from one above. Unfortunately the evolution of the faculty man with knowledge in depth commonly has been accompanied by a loss of the leavening influence of the clinical teacher, either full-time or of voluntary faculty, who could integrate material from depth into its application in breadth. Exposure of the undergraduate and graduate student to comprehensive medical care, rehabilitation and prevention of disease, can be offered in all but few medical centers today. It needs only the vision of curriculum committees, deans and chairmen of departments to meld the contributions of those working in depth with those applying knowledge in breadth in the care of sick people. Hopefully an extension of current curricular experimentation will stimulate the latent potential of every medical student to be a good practitioner in the area of family practice, irrespective of his specialty. Not forgetful of the problems of the small town or rural area one needs to add, if the Regional Pro-

⁸ Editorial: Changing Methods in Medical Education, J. Tennessee M.A. 45:457, 1952.

grams ("heart, stroke and cancer") will in truth be sincere and not an empty gesture, the practitioner who chooses to live in such areas can be supported by practical continuing education and other means to provide comprehensive medical care. Certainty of professional support will in itself stimulate interest in the smaller community.

No one is a greater proponent of the need for comprehensive medical care than your Editor. He questions, however, whether dissecting medical knowledge and picking out a bit here and a bit there can be cemented into a new specialty as distinct from the remainder of medical knowledge, and certainly cannot be taught in a medical school as knowledge distinct from that incorporated in the usual disciplines. Such an attempt would be an insult to the intelligence of our medical students, be pedagogically unsound, and be contrary to the fulfillment of the motivation of the young man as he embarks upon a career for the practice of medicine. Rather, the pendulum of education in the clinical departments in medical schools must fall back to the midpoint to provide breadth, at little expense to depth, to permit the latent abilities of most graduates provide comprehensive medical care within the bounds of any specialty and in collaboration with his colleagues.

R.H.K.

IN MEMORIAM

WOODARD, BERNARD HATCHER. Died 19, November, 1966, Aged 85. Graduate of the Old University of Tennessee College of Medicine, Nashville, 1907. Member of Maury County Medical Society.



RICE, TANDY C. Died 21, October, 1966, aged 59. Graduate of Vanderbilt University School of Medicine, 1931. Member of Williamson County Medical Society.



ALSOBROOK, HAROLD KLYCE. Died 27, October, 1966, aged 43. Graduate of University of Tennessee College of Medicine, 1946. Member of Consolidated Medical Assembly of West Tennessee.



CORE, WILLIAM JESSE. Died 10, November, 1966, aged 74. Graduate of Vanderbilt University School of Medicine, 1915. Member of Nashville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Montgomery County Medical Society

The Montgomery County Medical Society held its regular monthly meeting November 15th, in the staff meeting room of the County Hospital. New officers elected for the coming year are Dr. Harold F. Vann, President; Dr. James L. McKnight, vice-president; and Dr. Richard W. Young, Jr., secretary.

The program was given by Dr. Curtis McGown who has just returned to Clarks-ville from Viet Nam where he was a volunteer physician under AMA's project Viet Nam program. Dr. McGown gave an excellent slide presentation of his tour which pointed out the medical needs of the civilian population as well as the overall picture of their way of life.

A slide presentation on Title XIX of P.L. 89-97 was also presented.

NATIONAL NEWS

This Month in Washington

(From the Washington Office, AMA)

The National Institutes of Health is concentrating its efforts in the artificial heart field to support of programs for development of auxiliary heart-pumping devices instead of a complete artificial heart. The auxiliary device approach includes the programs led by Dr. Michael E. DeBakey of the Baylor University College of Medicine in Houston and Dr. Adrian Kantrowitz, chief of surgical services at Brooklyn's Maimonides Hospital. Other teams working on developing complete artificial hearts will continue their research, but the government will not emphasize their approach.

The decision to forego for the present a major program to build a complete artificial heart was made by Dr. James A. Shannon, NIH director, after he determined that not enough fundamental information existed on just how the heart operates to make such a project feasible.

Dr. Kantrowitz described the problems involved in designing artificial heart devices in a speech at a meeting of the American

Society of Mechanical Engineers in New York. "The heart is not a simple pumping device. It receives thousands of signals from other parts of the body," he said. "For example, when a good-looking blonde walks down the street, your heart speeds up. To make mechanical hearts respond to a blonde will not be so easy. It's better to leave the heart in place to respond to all these signals and make a mechanical pump as an auxiliary device to do most of the work.

Dr. DeBakey is working toward development of a device that would allow the heart to rest long enough for it to recover its strength and resume its role in the body without assistance. Dr. Kantrowitz is working toward development of an implantable auxiliary device that would permanently aid those whose hearts cannot function adequately alone. Both these approaches and others similar to them are of the type the institute want to support. "We want to develop both a family of highly efficient short term devices to tide people over acute heart attacks and also completely implantable heart-assist devices," a NIH spokesman said. "Then, after this type of development is worked out and devices have been proven in clinical trials with a high degree of reliability and it looks like total heart replacement is feasible, we will push toward that goal."

Dr. Kantrowitz praised the partnership between physicians and engineers necessary in the artificial heart field but he said efforts must be made to ensure that leadership in the research must remain with the medical profession and not be given to engineers who do not fully understand the medical problems involved.



Obesity has become a major health problem in the United States and a special health hazard for three obesity-prone groups, according to the Public Health Service. Quoting a new PHS source book for health professionals, OBESITY AND HEALTH, the Service said that the prevalence of obesity in this country is a source of growing medical concern because "fat people are more likely to develop certain diseases and to die at an earlier age than people of normal weight."

Prime candidates for the development of

obesity and its attendant association with certain serious disorders and possible early death, according to the PHS, are:

1. Children whose relatives are obese: In one study, 73 percent of 1,000 obese patients had at least one obese parent. (2) Heavily built persons who also have corpulent tendencies: Obese individuals usually have a heavier physique than their non-obese counterparts. Large-boned and thickly muscled persons, particularly adolescents, who fit this description should be watched closely. (3) Persons who are becoming less active, more sedentary: Food intake does not decrease proportionately with decrease in energy expenditure. As activity decreases, for whatever reason, the risk of developing obesity increases.

The Service said that while a substantial amount of obesity exists at every age in both sexes, obesity in children and adolescents is a particularly discouraging omen for the future. "Obese children and adolescents are a major reservoir for obesity in adult life," the source book said. "They are more likely to remain obese as adults and to have more difficulty in losing fat and maintaining fat loss than people who become obese as adults."



No bottle of children's aspirin sold after July 1, 1967, will contain more than 36 tablets in a joint government-industry effort to reduce accidental overdose. This restriction was one of several steps announced jointly by the Food and Drug Administration and 32 drug firms after a conference aimed at curbing childhood deaths and illnesses.

Also by July 1, bottle of children's aspirin will contain this cautionary label: "Precaution: No cap is 100 percent childproof. In case of accidental overdose, notify physician immediately."

Also agreed on was a limitation in the potency of children's aspirin. Some now range as high as 5 grains a tablet. The new limit will be 1¼ grains.



Dr. William H. Stewart, Surgeon General of the Public Health Service, says the nation's hospitals need 20 percent more profes-

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525 Bland St., Bluefield, W. Va.

David M. Wayne, M.D.

Phone: 325-9159

Beckley Mental Health Center

109 E. Main Street, Beckley, W. Va.

W. E. Wilkinson, M.D.

Phone: 253-8397

Charleston Mental Health Center

1206 Quarrier St., Charleston, W. Va.

Malcolm G. MacAulay, M.D.

Phone: 344-3578

Mental Health Clinic

Professional Building, Wise, Va.

Pierce D. Nelson, M.D.

Phone: 328-2211

sional and technical workers—primarily nurses—to provide the best patient care.

Stewart's statement accompanied a joint U. S. Public Health Service-American Hospital Association survey which showed that more than 80,000 additional nurses and 40,000 practical nurses are needed, plus 50,000 aides in general hospitals, 30,000 in psychiatric institutions, 9,000 medical technologists, 7,000 social workers and 4,000 physical therapists, x-ray technologists and surgical technicians.

John W. Gardner, Secretary of Health, Education and Welfare has appointed a six-member Task Force on Environmental Health and Related Problems and instructed it to "think at least 50 years ahead."

Chairman of the Task Force is Ron M. Linton, who was, until last September, staff director of the Senate Committee on Public Works and is now associated with Urban America, Inc.

The Task Force will be concerned, Linton said, not only with such obvious threats to health as air and water pollution but with "crowding, noise, lack of open space, lack of mobility, dirt." The Task Force will hold hearings in a number of cities, and is scheduled to report to Gardner by June 1, 1967.

MEDICAL NEWS IN TENNESSEE

Middle Tennessee Medical Association

The 144th Semiannual Meeting of the Middle Tennessee Medical Association was held November 17th at Holiday Inn in Columbia. Speakers and their subjects were: Dr. Robert C. Coddington, Nashville—"Knee Injuries"; Dr. Wm. N. Jernigan, Columbia—"Clinical Aspects of Rocky Mountain Spotted Fever"; Dr. Robert M. Hollister, Franklin—"Unusual Manifestations of Tularemia"; Dr. Wm. R. Jones, Nashville—"Ureteral Injuries Associated with Pelvic Surgery"; Dr. Thomas E. Brittingham, Nashville—"Anemia"; Dr. Anderson Spickard, Nashville—"Cultural Studies of Bile and Gallstones from Typhoid Carriers Treated with Ampicillin"; Dr. Kenneth L. Classen, Dr. Jeannine A. Classen, and Robert J. Bosley—"General Endotracheal Anesthesia for Endoscopy—Review of 3,371

Cases"; Dr. Joel T. Hargrove, Columbia—"Some Experiences with Intrauterine Devices"; Dr. Harry C. Helm, Columbia—"Experiences in Nicaragua with Immunizations"; Dr. Joseph L. Parsons, Jr., Sewanee—"Peritoneal Dialysis"; Dr. Eugene C. Klatte, Nashville—"Radiology—Past, Present and Future"; Dr. William S. Stoney, Nashville—"Cardiac Pacemakers"; Dr. Wm. G. Fuqua, Columbia—"Use of Cardiac Monitor in Rural Hospitals"; Dr. Joseph A. Pryor, Nashville—"New Methods in the Management of Rh Sensitized Pregnant Women"; Dr. K. M. Kressenberg, Pulaski—"Title XIX, Medicare."

A social hour and the Presidential Banquet concluded the session. Dr. Thayer S. Wilson, Carthage, was honored by the Association as the year's "outstanding member," and was presented a plaque by the president, Dr. George Mayfield.

Tennessee Chapter, American College of Surgeons

Approximately 200 surgeons attended an interim meeting of the Tennessee Chapter, ACS, November 12th in Knoxville. Five noted surgeons presented lectures and held panel discussions which were in the field of trauma or shock. Dr. Oscar P. Hampton, St. Louis orthopedist, spoke on "Compound Fractures and Accompanying Shock"; Dr. Robert Ellison, chairman of the thoracic surgery department, University of Georgia, discussed "Injuries to the Chest", Dr. Arlie Mansberger, University of Maryland, led a panel on "Traumatic Shock"; Dr. Roger Sherman, head of general surgery, U. T. College of Medicine, spoke on "Abdominal Trauma"; and Dr. William Meacham of Vanderbilt University School of Medicine, led a panel discussion entitled "Trauma of the Central Nervous System."

A banquet preceded the meeting on Friday evening, November 11th at the Andrew Johnson Hotel.

University of Tennessee College of Medicine

Two research continuation grants totaling \$97,224 have been received by the Department of Pathology from USPHS. One grant of \$43,904 is to Dr. Sidney A. Coleman, professor of pathology, for his work with oral

cancer and related disease using the smear technique, and the other for \$53,320 was made jointly to Dr. Cyrus C. Erickson, professor of pathology, and Dr. Coleman will be used to evaluate and further develop a variation of the cytopipette method for detecting uterine cancer in high risk populations. The U. S. Public Health Service also approved renewal of its grant to Dr. Richard O. Bicks, gastroenterologist, for the third year of his five year study project on delayed hypersensitivity reactions on the GI tract. Amount awarded for the 1966-67 period is \$40,141. His study explores the possibility that hypersensitivity to contact allergy mechanisms may be the etiology of many heartofore unexplained diseases of the gastrointestinal tract.



The value of research being done by the University of Tennessee totaled \$12,554,519 for the 1965-66 school year, an increase over the previous year of \$2,193,328, and the third consecutive year that the value of research has increased by a million dollars or more. The Medical Units at Memphis had an increase of \$970,459 in research projects over 1964-65, raising its dollar value of research to \$5,161,630.

Hundreds of research projects are involved in the total program, funded from both private and governmental sources.



The medical units will offer aid to hospitals in the state, which are not part of the University system, in improving the hospitals' graduate medical training programs. The decision was made by the Board of Trustees following a report from a special committee on University involvement in medical education. The committee felt that quality programs should be available throughout the state and that UT's medical units are capable of helping other institutions. Among the possibilities between U.T. and the various hospitals is exchange programs of staff and rotation of graduate students.



Dr. Philip C. Schreier of the University of Tennessee College of Medicine was honored with a banquet on October 28th at the Mem-

phis Country Club. Medical associates paid tribute to Dr. Schreier who has been associated with the College more than forty years. He recently retired as chairman of the department of obstetrics and gynecology. Approximately 175 medical colleagues, including members of the Memphis Obstetrical and Gynecological Society and former residents who trained under Dr. Schreier, attended.

International Medical Symposium

More than 150 scientists attended a symposium on "Compartments, Pools and Spaces in Medical Physiology" at Oak Ridge in October. The program, sponsored by Oak Ridge Associated Universities and supported by the U. S. Atomic Energy Commission, consisted of 21 formal presentations by invited speakers from the United States, Canada, England, Ireland, Denmark and Sweden.

The meeting is the tenth international medical symposium led by the staff of the ORAU Medical Division, concerning major problems in clinical applications of radioisotopes, and designed to help resolve problems in interpretation of studies concerning body content of clinically important chemical substances. The symposium is one of the many activities of the Medical Division, which for seventeen years has conducted a continuing research program exploring possible medical uses of radiation and radioactive materials, and related basic biomedical problems.

Psychiatry For Internists

A seminar on interviewing technics to bring out personality traits and the emotional aspects of psychosomatic disease was held on the campus of the University of the South, Sewanee, December 1 to 4. This was given under the auspices of a Task Force of the American College of Physicians and the American Psychiatric Association, which is interested in fostering such activities especially in teaching community hospitals. The seminar or course was attended by a dozen internists of Nashville who have a role in the teaching programs of Saint Thomas Hospital and Baptist Hospital of Nashville. The course was under the direction of Doctors Rob Roy and Morse Ko-

chtitzky, Chiefs of the Medical Services at these hospitals respectively. The faculty consisted of Doctors Ephraim T. Lisansky, Bernard Shocket and Kent E. Robinson of the Departments of Internal Medicine and of Psychiatry at the University of Maryland, School of Medicine, Baltimore, and Doctors Charles B. Smith and Robert W. Adams, psychiatrists of Nashville. Financial support was provided by Wyeth Laboratories.

PERSONAL NEWS

Dr. Julian K. Welch, Brownsville, described by his colleagues as "the epitome of the modern physician" has been named the state's "general practitioner of the Year" by the Tennessee Academy of General Practice.

Dr. Harry H. Jenkins has been named president of the Knoxville Surgical Society succeeding **Dr. Harwell Dabbs**. **Dr. William Pugh**, Oak Ridge, was named vice-president and **Dr. Victor Klein, Jr.** of Knoxville was elected secretary-treasurer.

Dr. Robert M. Miles, Memphis, was a participant in both sections of the 10th Congress of the Pan-Pacific Surgical Association held recently in Honolulu and Tokyo.

Dr. Walter D. Hawkins, Johnson City, was named president-elect of the American Cancer Society, Tennessee Division, Inc. at the organization's recent annual meeting in Nashville.

Dr. Alfred P. Kraus, Memphis, was recently elected to membership in the Central Society for Clinical Research. Dr. Kraus is professor of the department of hematology, University of Tennessee.

Dr. Calvin Miller, formerly of Dayton, has opened a new clinic in Tellico Plains.

Dr. Roger L. Hiatt, Memphis, was elected to the Board of Trustees of the American Association of Ophthalmology during its annual meeting held recently in Chicago.

Dr. George K. Henshall, Chattanooga, has been named president of the East Tennessee Radiological Society. **Dr. Homer P. Williams**, Bristol, was named President-elect to succeed Dr. Henshall in 1968. **Dr. Robert E. Maddox**, Kingsport, was elected Vice-President, and **Dr. T. F. Haase, Jr.**, Knoxville, Secretary-Treasurer.

Dr. R. H. Hutcheson, Commissioner, Tennessee Department of Public Health, has announced the appointment of **Dr. Thomas C. Littlejohn, Jr.**, Nashville, as Medical Examiner for the State of Tennessee.

Dr. Burt Friedman will head 1967 activities of the Memphis Academy of Internal Medicine, succeeding **Dr. Alys Lipscomb** as president. Other new officers: **Dr. J. D. Upshaw, Jr.**, vice president; **Dr. Glenn E. Horton**, secretary, and **Dr. John W. Runyan, Jr.**, treasurer. New Council members

are: **Dr. Blair Erb** of Jackson, **Dr. Charles B. McCall** and **Dr. A. B. Weir**.

Dr. William N. Dawson, medical director for Aluminum Company of America's Tennessee Operations at Alcoa for 22 years, has been named to the newly created post of manager of medical programs for the company. He assumed his new responsibilities in Pittsburgh on January 1. **Dr. Jack S. Phelan**, assistant medical director since 1954, has been named medical director of the operations in Tennessee.

Dr. Richard Walker, professor of Pathology and medical director of City of Memphis Hospitals Blood Bank, participated in a symposium on the ABO Blood Group System and presented two papers on the Lewis Blood Group System at the annual meeting of the American Association of Blood Banks in Los Angeles.

Dr. John H. Saffold, Knoxville, has been appointed by the American Medical Association to a four year membership on the Medical Advisory Board of The Sears-Roebuck Foundation.

Dr. John L. Sawyers, Nashville, has been named vice-chairman of the section on surgery of the Southern Medical Association. **Dr. Robert M. Ruch**, Memphis, was named secretary of the section on gynecology.

Dr. John D. Moore, Knoxville, has been elected chief of Serene Manor Hospital.

Dr. George T. Novinger was named secretary and **Dr. Wm. M. Kelling** and **Dr. E. V. Davidson** were elected to the executive committee of the hospital.

ANNOUNCEMENTS

Calendar of Meetings, 1967

State

Feb. 15-17	Mid-South Postgraduate Medical Assembly, Sheraton-Peabody Hotel, Memphis
April 13-15	Tennessee Medical Association Annual Meeting, Sheraton-Peabody Hotel, Memphis

Regional

Feb. 15-19	Atlanta Graduate Medical Assembly, Atlanta Marriott Motor Hotel, Atlanta
Feb. 23-25	Central Surgical Association, Pittsburgh-Hilton Hotel, Pittsburgh, Pa.
March 6-9	New Orleans Graduate Medical Assembly, Roosevelt Hotel, New Orleans
March 16-18	Southern Society of Anesthesiologists, Fort Sumter Hotel, Charleston, S. C.
March 20-23	Southeastern Surgical Congress, Americana Hotel, Bal Harbour Florida

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	National
April 10-13	Southwestern Surgical Congress, Del Webb's Towne House, Phoenix, Arizona
Feb. 15-19	American College of Cardiology, Washington Hilton Hotel, Washington, D. C.
Feb. 18-22	American Academy of Allergy, Holiday Inn — Riviera, Palm Springs, Calif.
Feb. 26—March 4	American Society of Clinical Pathologists, Dunes Hotel, Las Vegas
March 12-15	International Academy of Pathology, Sheraton Park Hotel, Washington, D. C.
March 19-24	American College of Allergists, The Roosevelt, New Orleans
April 3-5	American Academy of Pediatrics, Hilton Hotel, San Francisco
April 7-9	American Society of Internal Medicine, St. Francis Hotel, San Francisco
April 9-13	American Urological Association (Southeastern Regional) Hollywood Beach Hotel, Hollywood, Florida
April 10-13	Industrial Medical Association, Americana Hotel, New York
April 10-14	American College of Physicians, Fairmont Hotel, San Francisco
April 11-13	American Surgical Association, Broadmoor Hotel, Colorado Springs
April 17-19	American Association for Thoracic Surgery, American Hotel, New York
April 17-19	American Proctologic Society, Jung Hotel, New Orleans
April 17-20	American College of Obstetricians and Gynecologists, Hilton Hotel, Washington, D. C.
April 24-29	American Academy of Neurology, San Francisco Hilton Hotel, San Francisco
April 27-28	American Pediatric Society, Seaside Hotel, Atlantic City New Jersey
April 30-May 4	International College of Surgeons (North American Federation) American Hotel, Bal Harbour, Fla.
May 3	American Cancer Society, Inc., Sheraton-Dallas Hotel, Dallas, Texas
May 4-6	American Gynecological Society, Arizona Biltmore Hotel, Phoenix, Arizona
May 6	American College of Psychiatrists, Annual Meeting, Detroit
May 7-12	American Psychiatric Association, Cobo Hall, Detroit

May 18-21	American Association of Plastic Surgeons, Royal York Hotel, Toronto, Canada
May 21-24	American Thoracic Society, Penn-Sheraton Hotel, Pittsburgh
May 25-27	American Gastroenterological Association, Broadmoor Hotel, Colorado Springs, Colo.
May 28—June 1	American Dermatological Association, Broadmoor Hotel, Colorado Springs, Colo.
May 29-31	American Ophthalmological Society, The Homestead, Hot Springs
May 29—June 2	American Urological Association, New York Hilton Hotel, New York

Cardiac Symposium

The Tenth Annual Cardiac Symposium, sponsored by the Arizona Heart Association in cooperation with the American Academy of General Practice, Arizona Chapter, will be held February 10-11 in the Del Webb Towne House, Phoenix. Advance registration is urged. Hotel reservations should be made directly with Del Webb's Towne House, 100 West Clarendon, Phoenix, Arizona, 85013. Program and information may be obtained from the Arizona Heart Association, 1720 East McDowell Road, Phoenix, 85006.

College Fellowship Program

The American College of Chest Physicians in an effort to advance knowledge of chest diseases and their treatment in other countries has established a Resident Fellowship Program through which medical graduates from other countries can receive assistance in taking postgraduate medical training in chest diseases in the U. S. or in any country other than their own. The following fellowships are being offered by the College at this time:

Eudowood Fellowship for Tuberculosis with a grant of \$2,500.00 per year for postgraduate training in the United States in tuberculosis. Candidates must hold a standard ECFMB certificate.

Li Shu Fan Fellowship for Postgraduate Study in Chest Disease appropriates \$1,200.00 annually for a twelve month period of postgraduate study in any country other than that of the candidate. If the postgraduate training is taken in the U.S., the standard ECFMG certificate would be required.

Physicians who are interested in the above fellowships should contact Dr. Andrew L. Banyai, Chairman of the Council on International Affairs, at the Executive Offices of the American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois, 60611, USA.

T M A

THE VIEWING BOX

The Physician's Role in the Social Security Disability Program

By ELSTON L. BELKNAP, JR., M.D.
Madison, Wisconsin

Most of us physicians carry private "disability income" insurance policies through our various medical societies and organizations. These insurance policies protect our families to some extent from the financial disaster of unexpected catastrophic illness or accident. We sleep better when we know that our families will be protected should our "day sheets" show "no work done" due to an unpredictable coronary, malignancy, or serious injury.

So, too, people in other professions and organizations have availed themselves of the private insurance principle for protecting their income during severe disease or injury.

Social Security Disability Program

In addition, there has developed in recent years a disability income insurance program for everyone who is covered under social security. Approximately one dollar of every eight paid into social security is placed in a special trust fund earmarked for the disability insurance benefit program. The disability program is administered nationally by a separate bureau of the Social Security Administration. Benefit payments and administrative costs are paid out of this special trust fund, not out of State or Federal tax revenues.

The social security disability program is an insurance program. It is not a welfare program. It is not a "give-away" program. Throughout the State of Wisconsin, in 1965, some \$29,000,000 was paid to more than 29,000 people. Monthly payments went to 17,000 disabled workers and their 12,000 dependent wives, husbands, and children (including adult children disabled in childhood). The typical disabled worker and his family receives a total of more than \$12,000 in disability payments over the years.

Doctor Belknap is Chief Medical Consultant to the Disability Determination Unit of the Wisconsin State Board of Vocational, Technical, and Adult Education's Rehabilitation Division.

Therefore, prudence is necessary to assure that only those severely impaired individuals who meet the level of severity established in the social security law are adjudged "disabled."

The disability program started just 12 years ago. In 1954, Congress passed the "disability freeze" which is similar to the "waiver of premium" clauses in many life insurance policies. This "freeze" protects a worker's earnings record so that his right to retirement and survivor's benefits remains intact if he becomes disabled and unable to contribute to social security (pay his premiums). By successive amendments in 1956, 1958, and 1960, Congress added monthly benefit payments for disabled workers and their dependents.

Definition of Disability

Disability was defined in the law originally as "inability to engage in any substantial gainful activity because of a medically determinable physical or mental impairment that could be expected to be of long-continued and indefinite duration or to result in death." In 1965, social security legislation modified the requirements for disability insurance benefits. The requirement that a worker's medically determinable impairment must be of long-continued and indefinite duration was eliminated.

The new legislation provides that an insured individual will be eligible for benefits *if he is unable to engage in any substantial gainful activity by reason of a physical or mental impairment which has lasted or can be expected to last for a continuous period of at least 12 months or result in death.* The phrase "inability to engage in any substantial gainful activity" means that a worker must be disabled not only for his usual job but also for *any* substantial work, even though such work may be different from his former work.

The severity requirement remains intact under the new law; only the duration requirement has been changed. The new duration requirement is met even if the applicant is receiving treatment which is expect-

ed to restore his ability to work shortly after the 12th month. Thus, non-permanent impairments resulting from accident or illness as well as chronic conditions are covered and, as a result, we now have a "temporary total" disability income insurance program.

Evidence to Support the Claim

The primary consideration in the evaluation of an applicant's claim for benefits is whether he has a "medically determinable impairment" either physical or mental, severe enough to prevent any substantial work. Each applicant is responsible for supplying the initial evidence in support of his claim. This evidence usually comes from his attending physician, as well as from hospitals, clinics and from other sources of examination and treatment. To expedite the claim, the local social security office in which the impaired individual applies for disability benefits may—at the applicant's request—mail the medical form directly to the sources of medical evidence.

Medical Reporting

The medical evidence can be submitted on the 4-page disability report form especially designed for this purpose. This report form is unstructured and permits physicians to report their findings in detail in the narrative style generally used by the medical profession. Also acceptable are copies of pertinent consultation reports, x-rays and electrocardiogram reports, hospital history and physical examinations, hospital summaries, pulmonary function test reports, etc. (Originals of these consultative reports are similarly welcome, and will be returned to the attending physician upon request.)

The need for objective medical evidence is paramount. The evidence must be complete enough to determine the current nature and severity of the impairment, its onset and the prognosis for recovery or improvement. The medical report should also contain the following elements:

- (1) A history of the impairment which describes the origin and course of the condition, dates of hospitalizations and other significant dates concerning treatment and response.
- (2) Objective findings such as results of physical examinations, significant lab-

oratory tests, EKG and x-ray reports, etc. which support the diagnosis and show what physical or mental changes have occurred, both at the alleged onset and currently.

- (3) The data upon which the diagnosis and prognosis are based.
- (4) A description of objective findings on the patient's functional limitations and remaining capacities, such as: How far can he walk? What activity causes shortness of breath or chest pain? How much movement has he in the affected parts of his body? What is his ability to think? What can he lift? How long can he stand or sit?

Evaluating Disability Claims

The determination of whether a person is disabled under the Social Security law is made under Federal-State agreement by an agency of the State in which the claimant resides. In Wisconsin, as in most states, this is done by the disability unit of Vocational Rehabilitation Division.

Each claim is examined by a "disability evaluation team" which always includes a physician (usually one in private practice who serves the State agency part-time) and a trained disability evaluator. The reviewing physician does not examine the claimant personally. He depends on medical reports in the claims folder for information needed to make the medical determination. These reports must provide sufficient information to enable him to answer the following questions:

- (1) Given the medical history, physical examination findings, laboratory results, and observations shown in the medical reports in file, can a diagnosis be independently established?
- (2) How severe is the applicant's impairment?
- (3) With the therapy being given the applicant, will the impairment last for a "continuous period of not less than 12 months?"
- (4) Can improvement or recovery be anticipated some time after the 12th month?
- (5) What is the applicant's remaining functional capacity?

- (6) Could the applicant benefit from Vocational Rehabilitation services?
- (7) Are additional medical findings necessary to reach a decision?

Additional Medical Evidence

The reviewing physician in the State agency may telephone the attending physicians and ask for additional specific medical evidence; eg., dates, symptoms, objective findings, response to therapy, remaining functional capacity, etc., not previously reported. This telephone contact procedure was tested last year in a number of states—Wisconsin among them—and proved to be a time-saver both to physicians and to the disability program. It was learned that attending physicians often have information in their records which they do not put in their written reports, and that they are usually willing to provide this information to the reviewing physicians without charge. In about 75% of the cases in which telephone calls were made in Wisconsin, the evidence received by phone was sufficient to allow the reviewing physician to make a medical determination. Of the remaining, in 18% of the cases, a consultative examination had to be purchased either from the attending physician or from an independent source.

Guidelines for Evaluation

The Bureau of Disability Insurance of the Social Security Administration in cooperation with its National Medical Advisory Committee has developed medical guides. These guides are designed to help reviewing physicians determine whether an impairment meets the level of severity described in the law. The guides do not substitute, however, for the sound medical judgment that is applied in evaluating each case.

With the accumulated experience of the past 12 years, it has become increasingly necessary to carefully consider vocational and other non-medical factors in the adjudication process. A sizable number of applicants can neither be allowed or denied on the basis of medical evidence alone. In these instances Social Security regulations require that while primary consideration must be given to the severity of the impairment, there must also be a realistic assessment of non-medical factors including age,

education, work experience, and vocational skills to determine whether the applicant has the capacity to perform "substantial gainful activity."

The responsibility for each disability decision thus rests with the reviewing physician and vocational evaluators in the State agency. Each decision is reviewed by the Bureau of Disability Insurance of the Social Security Administration located in Baltimore to assure uniformity and consistency with national standards. The applicant has the right and opportunity to appeal an adverse decision.

Reexaminations

Once allowed, a beneficiary is not automatically forgotten. Specific reexamination dates are set for the time when ability to return to substantial gainful activity might be reasonably anticipated. At such time, the patient's medical status and remaining functional capacity are reevaluated.

The attending physician may again be requested to provide a report for this purpose. If the evidence received shows clearly that recovery or improvement has occurred and functional capacity allowing return to employment has been restored, Social Security disability benefits are terminated. Of course, if the medical evidence shows that "disability" continues, benefits will continue.

If the evidence concerning recovery and remaining functional capacity is not clear, the attending physicians may be asked to provide additional information. As in the initial claims procedure, consultative examinations may be arranged to provide the necessary information.

Conclusion

The physician has more than enough to do in diagnosing and treating his patients. In addition he also has the difficult challenge of keeping up with advances in diagnosis and therapy in our scientific age. In our complex and ever changing society it is also vital that the busy physician provide medical evidence to the Social Security Disability Insurance program to protect the earned rights of his patients.

(Reprinted from the Wisconsin Medical Journal Sept. 1966.)

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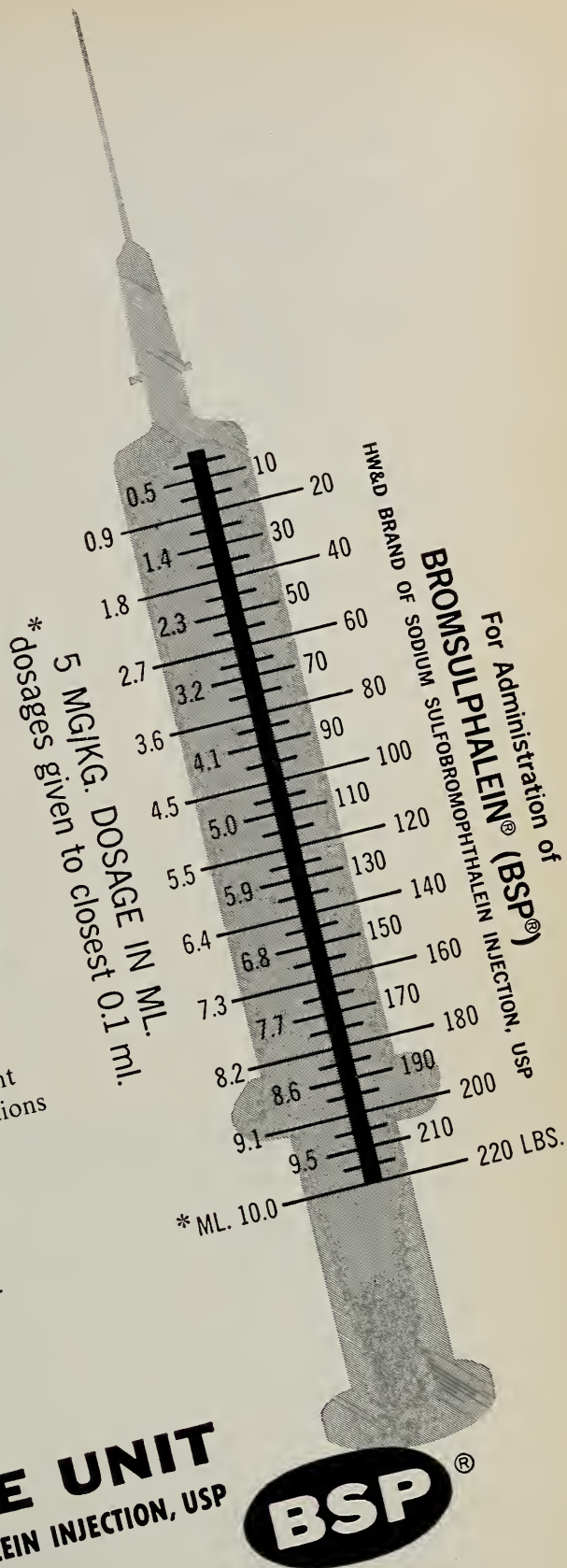
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The authors review facts concerning the incidence, characteristics and possible complications of diverticula of the small bowel, excluding the not uncommon diverticula of the duodenum. Attention is given particularly to the malabsorption syndrome.

SMALL BOWEL DIVERTICULOSIS Anatomic Curiosity or Pathological Entity*

W. T. HAYES, M.D., H. BERNHARDT, M.D. and J. M. YOUNG, M.D., Memphis, Tenn.

Diverticulosis of the small bowel was originally thought to be an anatomic curiosity, but subsequently there have been observations of local, intra-abdominal, and metabolic complications. Patients with significant chronic symptoms or acute intra-abdominal complications have required surgical intervention. The triad of diverticulosis of the small bowel, megaloblastic anemia, and steatorrhea is the most recently observed complication.

A study of our cases and a review of the literature on diverticulosis of the small bowel was prompted because of the great variation in the reported incidence of the medical and surgical complications.

Findings

There have been 13 patients in our hospital in whom a diagnosis of diverticulosis of the small bowel has been made incidentally either radiographically or at autopsy. These patients presented with various disorders such as duodenal ulcer, familial polyposis of colon, carcinoma of the ampulla of Vater, carcinoma of the bladder, carcinoma of the prostate, pneumonia, coronary artery disease, and Guillain-Barre syndrome. In none of these patients could their symptoms or death be attributed or related to the presence of the diverticula. Eight of the 13 patients came to autopsy and presented diverticula of the small bowel of similar anatomic appearance. Patients with duodenal diverticula (which are relatively common) were excluded unless jejunal or ileal diverticula were also present.

Grossly, the diverticula in all examined at autopsy extended into the mesenteric fat compressing and pushing it aside. The mesenteric vessels could be seen coursing over the apices of diverticula to enter the bowel wall. The diverticula were thin-walled, easily compressed, and filled with air and a liquid resembling succus entericus. In general, their stomas were large and easily seen in contrast to the often occult stomas of colon diverticula. The number of diverticula varied from a solitary jejunal diverticulum to an estimated 200 diverticula involving the entire small bowel. The size varied from less than 1 cm. to 6 cm. (Figs. 1 & 2.)



FIG. 1. A segment of jejunum showing numerous small and large diverticula.

Microscopically, these diverticula herniated through the muscular layer of bowel. Their layers consisted of mucosa, submucosa, and peritoneum. A narrow rim of hypertrophied muscularis mucosa was promi-

*From the Laboratory Service, Veterans Administration Hospital, Memphis, Tenn.



FIG. 2. A cross section of a thin-walled small intestinal diverticulum protruding into the mesentery.

nent. In most instances the muscularis externa was composed of a few strands of smooth muscle and in several instances there was complete absence. The gross and histologic appearance of the villi was unremarkable. In some sections the mesenteric vessels were seen in fat near the apices of diverticula (Fig. 3). No sign of inflam-

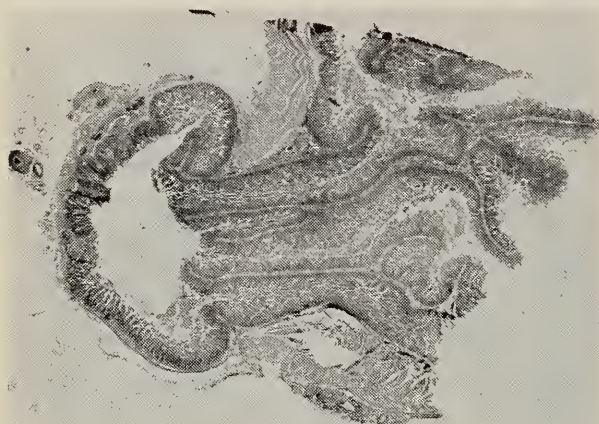


FIG. 3. A cross section of a jejunal diverticulum showing herniation through the muscular layer. Mesenteric vessels are in fat near the apex. (H&E. $\times 8$)

mation or hemorrhage was present in any of the numerous sections.

In none of the cases were there complications requiring surgical treatment. One patient with carcinoma of the prostate had a megaloblastic anemia; his Schilling and fat absorption tests revealed no impairment. His anemia was attributed to chronic dis-

ease and inanition, and not related to the diverticulosis. No evaluation was made on the other patients to determine whether or not there was an impairment of absorption of vitamin B¹².

Discussion

Diverticulosis of the small intestine was first observed at autopsy in 1807,¹ found at operation in 1906,² and diagnosed radiographically in 1920.³ Diverticulosis of the small bowel is rare in contrast to the common occurrence of diverticulosis of the large bowel. Diverticulosis of the small bowel has been found incidentally in 0.1 to 0.2 per cent of autopsies, but slightly more in people dying over the age of 50.⁴ The diverticula are thought to be acquired because:—they occur primarily in the elderly, are on the mesenteric border, and occur at the site where vessels enter the muscular layer of the bowel. The diverticula offer little resistance to palpation at operation; and, if small, are hidden from view in the mesentery. The introduction of contrast media for radiologic studies of the gastrointestinal tract has increased the number of cases reported, as has the technic of air insufflation of small bowel at autopsy. In a large series reviewing 122 clinical and autopsy cases, the proximal jejunum was the portion of bowel most frequently involved, the size varied from a few millimeters to 9 cm., and the number of diverticula was more than 3 in 50 per cent of the cases.⁵ Instances with several hundred diverticula have been reported. The diverticula usually have a large stoma and the liquid contents of the small bowel pass readily to and from the intestinal lumen.

In a clinical study of 87 cases of jejunal diverticulosis in 1952, Baskin and Mayo⁶ found that about 10 percent of the patients had complications which required surgical treatment. Included in those operated upon were:—intestinal obstruction, abdominal pain, inanition, acute diverticulitis, severe gastrointestinal hemorrhage, and volvulus. About 30 percent of the patients had vague abdominal complaints and dyspepsia for which no other cause could be found. About 60 percent of the patients had no complaints referable to the diverticula, and they were found only incidentally. This group of patients was not studied for malabsorption of

B¹². Altemeier and associates⁷ found that 38 percent of their 62 patients with jejunal diverticulosis developed significant chronic symptoms or a serious complication that could only be corrected by surgery. They used air insufflation of the bowel at operation to help determine the location and extent of the diverticula and in locating perforation if present. In 2 of their cases there was evidence of malabsorption of B¹², but it is not stated whether the other cases were studied for malabsorption.

One of the most fascinating aspects of diverticulosis of the small bowel is the occurrence of metabolic defects as impairment of absorption of B¹² and fat. Many papers have dealt with this association. It is thought that stagnation of bowel contents in diverticula promotes growth of bacteria in a region which ordinarily contains relatively few bacteria. This bacterial flora (which has been shown to consist of strains of *E. coli*^{8,9}) interferes with the absorption of vitamin B¹² in a manner similar to that of the "blind loop syndrome." The patient may then develop megaloblastic anemia and neurologic disorders of B¹² deficiency. Impaired absorption of B¹² may be present without manifest anemia, and can be determined by a variety of tests such as the Schilling test and serum levels of B¹². In a thorough clinical and laboratory study of 33 patients with jejunal diverticulosis, Cooke and collaborators¹⁰ found 14 had evidence of B¹² depletion and 12 had neuropathy. It has been shown that while B¹² orally and intrinsic factor will not correct the megaloblastic anemia, the use of broad spectrum antibiotics orally produces dramatic improvement.⁸ In some cases of small bowel diverticulosis, there is an associated steatorrhea with flattened glucose tolerance curve and an increase in fecal excretion of I¹³¹ labeled triolein.^{4,9} Broad spectrum antibiotics have been useful in correcting this also.

Inasmuch as patients with diverticulosis of the small bowel may have varying degrees of impairment of absorption of B¹² with or without anemia, appropriate tests should be performed to detect this defect. The routine performance of these tests in all cases of diverticulosis of the small bowel will probably reveal that the metabolic dis-

turbance is not as rare as it is presently thought to be.

Summary and Conclusions

Thirteen cases of diverticulosis of the small bowel are presented, and the typical anatomic findings are described and illustrated. All of the patients seen at this hospital were asymptomatic, but they were not thoroughly investigated for impaired absorption of B¹². The surgical complications reported by others were not present in this group. More insidious, but equally as important, is the malabsorption of B¹² associated with small bowel diverticulosis. It is important to realize that malabsorption of B¹² may be present in the absence of anemia. The incidence of impaired absorption of B¹² in diverticulosis of the small bowel will only become apparent when all cases are investigated for this possible defect.

It then becomes quite apparent that diverticulosis of the small bowel is more than just an anatomic curiosity.

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CASE REPORT

Latent Hypoparathyroidism*

Joseph J. Dodds, M.D., and

Guy M. Francis, M.D., Chattanooga, Tenn.

Today, as a result of the increasing number of surgical procedures performed on the thyroid gland, there is also a corresponding increase in the number of complications accompanying these operations. This article discusses one of the more unusual problems which may follow surgery in this area, namely latent hypoparathyroidism.

It is generally agreed that overt postoperative hypoparathyroidism is usually produced by removal of two or more of the glands or as the result of such extensive trauma to their blood supply that the glands become infarcted and atrophy. It is likewise accepted that the incidence of obvious tetany ranges between 0.5 and 3 percent of all routine thyroidectomies.¹ When one considers only the total thyroidectomies done for malignancy, this percentage significantly increases.² It has been postulated that latent hypoparathyroidism results from vascular interference and that the condition is particularly likely to occur in individuals in whom the surgeon's technic includes ligation of the inferior thyroid artery.³ *Latent tetany* is seldom mentioned in the articles discussing surgical complications of the thyroid area. Therefore, we wish to briefly review parathyroid physiology, report a case demonstrating latent tetany, and finally describe how this problem was managed in this instance and the therapeutic results obtained.

Parathyroid Physiology

At the present time four functions are postulated and attributed to the parathyroid hormone. The primary effect of this substance is thought to be the initiation of phosphorus diuresis by the inhibition of phosphorus reabsorption in the distal convoluted renal tubules.^{4,5} This in turn results in a drop of the serum phosphorus which is then replenished by a drawing of phosphorus, and along with it calcium, from the bones. This is the reason for the hypercal-

cemia of hyperparathyroidism. It is also believed that the hormone acts directly on the organic matrix of the bone causing it to release its mineral content. The hormone is reported to increase the solubility of calcium and phosphorus and to stimulate osteoclastic destruction of normal bone. Today it is doubted that the hormone has any direct effect on calcium reabsorption from the glomerular filtrate.⁴ In the tetanic state the parathormone level drops causing the retention of phosphorus, which in turn results by some obscure means in hypocalcemia. Calcium levels as low as 5 mg. per 100 ml. and phosphorus as high as 12 mg. have been reported in cases of chronic tetany.⁶ It has been suggested that patients who have had thyroidectomy cannot produce sufficient parathormone to maintain the serum calcium at normal levels during the administration of drugs which inhibit the absorption of calcium from the intestine, but that there is enough to increase urinary excretion of phosphorus.⁴

The paresthesias and muscle spasms found in patients with frank tetany are due to the deficiency of calcium in the peripheral nerves, the sympathetic ganglia, the myoneural end-plates and possibly in the intracerebral nervous pathways.⁴ At the present time hypoparathyroidism is controlled primarily through the use of calcium supplements orally and therapeutic vitamin D.⁷ In addition, in some patients with permanent disease, dihydrotachysterol or AT-10 and parathormone extract have been used. Parathormone has a somewhat limited use since, as a protein extract of glands from another animal species, it stimulates the formation of anithormones in human beings which neutralizes its effect. Parathormone for this reason is limited primarily to control for acute hypoparathyroidism.

Case History

Chief Complaint. The patient was a 10 year old, white girl admitted to the hospital because of a lump in her neck.

Past History. She had had measles and chicken pox, but no other serious illnesses. Tonsils and adenoids had been removed at the age of 4 years. Menarche had not occurred.

Family History. This revealed that her maternal grandmother had heart disease and high blood pressure, and that her paternal grandfather had

*From the Department of Surgery, Campbell Clinic-Hospital, Chattanooga, Tenn.

heart trouble. The remainder of the family was in good health. There was no history of malignancy.

Present Illness. The patient was discovered to have an asymptomatic mass in the left side of the neck several months previously, and the thyroid was found to be enlarged and firm. It was thought at that time that the patient had a form of thyroiditis and she was treated with thyroid extract and steroids.

During the time prior to operation, her course was followed regularly, and as the result of the treatment the thyroid gland was thought to have decreased in size. A small nodule was present in the left mid-jugular region. It was firm and did not change with the treatment. During the interval between the initial examination and subsequent operation, the patient was frequently bothered with bronchitis and laryngitis. Approximately one month before operation, a new small nodule was found in the isthmus of the gland and surgical exploration was advised at this time.

Physical Examination. The patient appeared to be well-developed and well-nourished. B.P. was 90/60, T. 98.4, P. 96, and R. 18. Examination of the neck revealed a 1.5 by 1 cm. mass at the anterior edge of the left sternocleidomastoid in the mid-jugular area. There were several small, less firm masses in the right mid-jugular area. The thyroid gland itself was somewhat diffusely enlarged and there was a 0.5 cm. nodule in the isthmus. The remainder of the physical examination was essentially negative.

Hospital Course. Since the patient had been on steroids systemically before operation, she was prepared with cortisone acetate and prednisolone (Hydeltrasol). The operation was performed under endotracheal anesthesia using methoxyflurane (Penthrane) as the primary anesthetic agent. A bilateral total thyroidectomy and bilateral modified neck dissection was carried out after a frozen section diagnosis revealed the lesion to be malignant. The thyroid gland had been totally replaced by tumor and the recurrent nerves were embedded in the posterior portion of the lesion. Each nerve had to be identified separately and dissected free from the malignancy. The two parathyroids on the left side were removed with the thyroid gland. On the right side the superior parathyroid was not disturbed; however, the inferior parathyroid on that side was injured during the procedure. Because of the amount of the surgical trauma to the recurrent nerves, it was thought at the end of the procedure that a temporary tracheotomy should be performed. The patient tolerated the surgical procedure very well. On the evening of the surgical procedure the patient showed first sign of tetany, namely a slightly positive Chvostek's sign. She was unable to speak, even with the tracheotomy tube corked, and this showed the wisdom of the tracheotomy at the time of operation. The day following operation, she had circumoral tingling, tingling of the tips of her fingers and the Chvostek's sign was more pronounced. The patient was given calcium lactate by mouth and AT-10 orally. In spite of this she de-

veloped carpalpedal spasm and required calcium gluconate intravenously. As time progressed, control of her tetanic symptoms was less difficult.

Convalescence. She was sent home on minimal doses of calcium orally and also on thyroid extract. Her convalescent progress was extremely satisfactory and she soon resumed all of her pre-operative activities. In approximately one month after operation the patient's ability to speak returned and the tracheotomy tube was removed.

Subsequent Therapy. Approximately 3 months after operation she was taken off of the thyroid extract given orally, and allowed to become hypothyroid. She was given daily doses of thyroid stimulating hormone for approximately 10 days and was then given a therapeutic dose of I¹³¹. A week later she was again started on her thyroid extract. Since that time she has done extremely well and has not developed any evidence of recurrence.

Follow-up. During the 6 months following the operation, she was examined regularly and serum calcium and phosphorus levels were regularly obtained. During this time it was noticed that the serum calcium remained relatively stable, though there was a slowly progressive increase in the serum phosphorus. It was thought that this probably indicated latent parathyroid insufficiency, and specific therapy was initiated which resulted in a drop in the serum phosphorus level. On several occasions during the 18 months following her operation, the patient would deviate from her therapeutic regimen and each time there would be a prompt increase in the serum phosphorus level. On the last examination, approximately 2 years from the time of surgery, her phosphorus was well within the normal range. Table 1 demonstrates

Table 1

Date	Serum Calcium (Normal 9.0-11.0 mg. per 100 ml.)	Serum Phosphorus (Normal Child 4.0-7.0 mg. per 100 ml.)
June 25, 1963	8.2	6.4
July 1, 1963	9.9	6.1
July 10, 1963	9.5	5.2
July 15, 1963	9.2	6.0
July 22, 1963	9.0	6.1
July 29, 1963	8.6	6.6
Aug. 6, 1963	9.0	6.2
Aug. 27, 1963	8.4	7.3
Sept. 13, 1963	7.0	7.3
Oct. 12, 1963	7.2	7.1
Nov. 8, 1963	8.1	8.1
Dec. 7, 1963	8.2	8.3
Institution of Measures Designed to Lower the Serum Phosphorus		
Jan. 24, 1964	8.1	6.1
Mar. 20, 1964	9.4	6.7
June 8, 1964	10.1	6.3
Aug. 24, 1964	11.1	6.1
Oct. 28, 1964	9.7	6.7
Dec. 30, 1964	9.9	7.6
April 24, 1965	9.2	7.7
July 31, 1965	7.9	3.9
Nov. 13, 1965	9.6	5.5
T3 (Normal 25-35%)		
Date		
June 13, 1963	22%	
April 24, 1965	25%	

the calcium and phosphorus determinations in this patient over the 2 year period since her operation.

Comment. The therapeutic regimen instituted in this case to provide the above results consisted of: (1) Therapeutic oral dosages of calcium lactate. (2) Therapeutic dosages of vitamin D to enhance the trans-mucosal transfer of calcium. (3) Dietary restriction of all foods high in phosphorus content. (Most notable of these was the restriction of milk, since it is often used in patients with tetany. However, in addition to its high calcium content, it likewise has a high phosphorus content. Table 2 repre-

sents a brief list of foods with a high phosphorus content.) (4) Regular daily doses of Gelusil to bind the remaining dietary phosphate and render it unabsorbable.

Summary

The case of a patient with latent tetany and the treatment instituted is reviewed. A brief discussion of parathyroid physiology is likewise presented.

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Table 2

FOODS THAT ARE HIGH IN PHOSPHORUS CONTENT
(Values Represented in Mg./100 Gm.)

1) Breads:	Whole Wheat	228
	Corn	218
2) Candy:	Chocolate	249-384
3) Cheese:		300-900
4) Eggs:	Whole	205
	Yolk	569
	Dried	800
5) Grains:	Buckwheat, Rye, Rice, Oats, Soybeans, Wheat, Wild Rice	339-650
6) Meats:	Beef, Chicken, Bacon, Duck, Kidney, Lamb, Liver	203-575
7) Milk:	Whole	229
	Chocolate	283
	Dried	700-1,000
8) Nuts:	Almonds, Brazil, Cashew, Filberts, Peanuts, Pecans, Pistachio, Walnuts	390-693
9) Seafood:	Fish	250-900
	Shrimp	263
	Scallops	208

* * *

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The medical graduate of the past decade or two has the basic knowledge to grasp and to understand scientific advances which touch medicine and its practice. Unfortunately, these advances are commonly presented at meetings attended mainly by those in the investigative or academic fields. They usually are recorded in the more technical journals commonly not in the hands of the practitioner, and he learns of them mainly by oblique references in clinical papers.

The AMA with its Institute for Biomedical Research and its staff is in a position to provide generally nontechnical reviews of areas of scientific advance which ordinarily do not reach state journals.

The JOURNAL would be interested to learn if the first of these articles provided by the AMA has been helpful as an item in continuing education. (A postcard is all that is necessary.)

New Explorations Among Life's Molecules*

With a probing beam of light scientists are beginning to explore among the molecules out of which all life is woven.

By a process known as optical rotatory dispersion it is now possible to penetrate beyond the limits of visibility imposed by the electron microscope and figuratively speaking take a "look" at biology's minute building blocks—protein.

Emerging from such studies is a flicker of insight into the exquisite complexities of being alive—insight that when expanded may some day be captured in a medicine bottle for the cure of presently incurable diseases.

The importance of protein to life can hardly be overemphasized. Indeed the two, protein and life, are almost synonymous. Without one there could not be the other, so far as anyone has been able to determine. Yet knowledge about protein is sketchy. Science probably knows more about the interior of a star.

As Dan W. Urry, Ph.D., of the institute for Biomedical Research at the American Medical Association explains it: "We know that the individual for the most part is a unique collection of proteins. What we're trying to understand is how these proteins function—or as the case may be in disease, malfunction. We think that optical rotatory dispersion is beginning to produce some answers."

Although its use in the study of protein is a relatively recent development, optical rotatory dispersion itself is not. Nearly a century ago the great French scientist Louis Pasteur showed that a beam of polarized light is twisted or rotated when passed through a transparent solution. Different

solutions produce different twists in the light. Thus by measuring the degree of rotation Pasteur found he could get a rough analysis of an unknown substance. It's as if you could cut through a watermelon with a thin knife and determine the shape of the seeds by the way the blade is twisted.

For such work ordinary light is useless. The vibrating conglomeration of light waves in a sunbeam, for instance, are much too unmanageable for optical rotatory dispersion. But polarized light is orderly. Its waves are parallel and they travel in the same plane—like a knife edge—so that the degree by which they are rotated can be measured. However, mere polarized light such as filters through your sun glasses is not the complete answer either. For the waves of this light, while parallel, are too big to delineate molecules. You might as well try to cast the shadow of a pin across a room with a flood lamp. In either case the light passes around the object without projecting any image or outline.

What is necessary are high-energy "ripples" of polarized light—light waves so small that they glance off molecules instead of "engulfing" them. Also there must be highly sensitive recording devices that can detect minute changes in intensity and rotation even after the light has penetrated a murky solution. Earlier instruments for optical rotatory dispersion lacked this degree of sophistication. Then about two years ago new light sources and recorders were developed that not only can distinguish molecules, but afford a glimpse of their structure as well. It is with such instruments that Dr. Urry and a few others (among them Drs. E. R. Blout and Paul M. Doty of Harvard, and Frank Yang of the University of California) are scanning new vistas among the proteins.

*A Science Feature Article prepared by the Communications Division, American Medical Association.

Optical rotatory dispersion is not the only means of picturing protein molecules. A process known as x-ray diffraction can perform somewhat the same task. But x-ray diffraction requires that the protein first be purified in crystal form. Optical rotatory dispersion, on the other hand, can provide a view of protein in a more life-like system—suspended in fluids similar to those of the body.

The difference, Dr. Urry feels, is important. For proteins in a living organism are not rigid molecules like lumps of concrete. Rather they are delicately sculptured mobiles capable of changing shape. This ability on the part of protein has vast significance. For hand in hand with changes in protein structure go changes in protein function—a fact emphasized more than a decade ago by Dr. Henry Eyring of the University of Utah and Dr. Rufus Lumry of the University of Minnesota.

“Eliminate the ability of protein to change and you have very probably eliminated the possibility for life,” said Dr. Urry. “For example, without changes in protein conformation blood could not effectively transport oxygen to the cells of the body; muscles could not contract and provide movement; hormones could not perform some of their regulatory functions, and antibodies could not destroy infectious disease organisms. Moreover, there could be little coordination of activity within the cells to produce such material as blood, hormones or antibodies in the first place—or to produce other cells, for that matter.”

All such activity is carried out by a highly specialized group of proteins, called enzymes, which work under genetic control.

Enzymes are catalysts; they cause reactions to happen without reacting themselves. It is an axiom of biology that when a gene wants something done it produces an enzyme to perform the task. Thus it falls to enzymes to organize, construct, maintain and control a living organism out of about 20 chemical elements—predominantly oxygen, carbon, hydrogen and nitrogen. Altogether a hundred thousand or so different reactions are routinely involved in human life. And it is now believed that many of these reactions depend upon the ability of enzymes to change their

activity—initiating a reaction here, shutting off a reaction there.

But what causes protein to change shape and thus change activity? So important is this question that by proposing an answer two French scientists, Jacques Monod and Francis Jacob, received the 1965 Nobel Prize in medicine.

Proteins change their shape, the Frenchmen said, by means of what they termed allosteric interactions. While the precise nature of such interactions is yet to be defined, they might be thought of as sort of “half reactions.”

In a normal chemical reaction two molecules fuse to form a third molecule. For example, glucose and fructose combine to form sucrose—ordinary table sugar. In the case of allosteric interactions things don't progress nearly so far, however. There is a linking of two different molecules but no fusing into a third. What happens instead is that the molecules adjust to each other. In the process one or the other or both may be changed structurally, yet each retains its individuality. Thus during an allosteric interaction involving a protein the shape or conformation of the protein molecule is changed by hanging another molecule on it, producing a sort of warping effect. It is somewhat like hanging wet laundry on a clothesline. The shape of the clothesline changes—stretching and bowing—but it is still the same piece of rope.

Protein conformation, however, is a good deal more complex than a clothesline. Although usually produced as a long thin strand—much like a rope—the protein molecule does not remain that way. Often it becomes spiraled corkscrew-fashion and the “corkscrew” folded and further twisted into what looks like a complicated tangle. But contrary to appearances proteins are not really tangles. Rather they are flawlessly tailored molecules. They have to be to carry out precise biological functions and still be capable of change. Each type of protein has a characteristic molecular structure. And this three dimensional orientation—the manner in which the protein strand is woven about itself—in turn determines what role the molecule will play amid the complex infinitesimal happenings within a cell.

With optical rotatory dispersion and x-ray

diffraction it is now possible to penetrate more directly this ravel and gain some insight into its workings. From what has been learned it appears that in the heart of the highly-ordered protein tangle—possibly at the place where the protein strand is knotted on itself—there is an “active site.” Only at this site can the molecule conduct its allotted function; perhaps mediating over an intricate reaction, perhaps linking up with other proteins to help construct a new cell. In addition, some protein molecules have a second critical site known as the effector or allosteric site. This is the site, it seems, that provides the hand hold where another molecule can link up with the protein.

Combining this as yet meager knowledge of protein structure with the theories of Jacob and Monod, the explanation of how changes in protein conformation work changes in protein function probably goes something like this:

A molecule (perhaps another protein, perhaps some other organic chemical) binds to the effector site of the protein creating an imbalance. To compensate, the protein strand must alter its shape, and this in turn alters the active site. Thus whatever function was being performed at the active site ceases . . . or it may be that a function is initiated instead of ended. In either event, the allosteric interaction that triggered the activity can take place only between specific molecules, for the two must fit more precisely than a key in a bank vault.

How protein achieves its all-important three-dimensional structure complete with active and effector sites is not entirely clear. But it seems that the impulse to attain a characteristic conformation is built in at the time the molecule is constructed out of subunits of amino acids. There are about 20 different amino acids. Depending upon both the order in which these subunits are linked and the total number used, proteins of almost limitless variety can be produced. A protein molecule may contain thousands of amino acid subunits. Yet each must be in the proper place. Let just one unit be missing or misplaced and the protein may not perform as intended, or may not function at all. Instructions for the proper alignment of amino acids into a protein molecule are

transcribed in genetic code in deoxyribonucleic acid (DNA)—the stuff of which genes are made. This information, stored in the cell nucleus, is transmitted by ribonucleic acid (RNA) to ribosomes—cellular assembly points—where the protein chain is actually forged.

Even though linked together in accordance with genetic dictates, not all the amino acid subunits are content to lie docile in their bondage, however. Some have affinities for others—chemical attractions and impulses to bind together forming cross links. As a result the protein chain twists and tangles into the precise molecular conformation that will produce the results for which the gene was coded.

Once produced, however, many proteins—particularly the enzymes—seem to pass beyond direct genetic control. They are not “born free” it’s true; but they do have enough leeway to respond to the molecular elements of their environment with allosteric interactions—changing shapes and in turn working other changes. This ability to react and respond to the environment—whether it is the environment of a cell, the body fluids or some structural tissue—is all important for the regulation and activation of life functions.

An example is the production of adenosine triphosphate (ATP). By splitting molecules of this substance the body provides itself with both electrical energy for the transmission of nerve impulses and mechanical energy to move muscles. The body of a man at hard physical labor may break down and reconstruct its weight in ATP in one day. Yet when he is leaning on a shovel less than one tenth as much ATP may be required. Because of the vast quantities involved, ATP cannot be stored by the body. Instead it is produced as needed by certain enzymes. But when shall ATP be produced and how much? This has to be determined by the ATP-producing enzymes, and the way they decide the matter is in response to their environment. When energy requirements are high the enzymes are free to produce ATP at full capacity. But when less energy is used, as when a man quits working, ATP begins accumulating in the cells and tissues where it was synthesized. Some of these accumulating molecules may bind

onto the effector sites of the enzymes, thus alter the active sites and switch off the enzymes' ability to manufacture ATP. Should the man resume work, the ATP is consumed, the active sites regain their functional shape and the enzymes switch back into the productive phase.

"At one time it was thought that the only way enzymes were switched off was by a jamming mechanism—the accumulation of the product they assemble at the active site," Dr. Urry said. "However, the picture we get from studies with optical rotation seems to indicate that allosteric interactions are also responsible."

Dr. Urry, in collaboration with Dr. Eyring, began his work with optical rotation by studying amino acids. Once some understanding of these basic components of proteins was obtained he teamed up with Dr. Doty at Harvard in the study of complete protein molecules. From such studies, and from the studies of other scientists (many of whom are using methods other than optical rotation) are arising new appreciation and better understanding of the basic components common to all life, whether microbes or man.

What emerges is an indication that proteins may be more than the static building blocks of life. They may contain something of the spark of life as well. Proteins are not living molecules, Dr. Urry emphasized. But they are not inert organic molecules like lumps of coal either. Their structure, their function, their mode of coping—after a fashion—with their environment, would appear to place protein molecules somewhere between living organisms and inanimate elements.

In pursuit of facts to test such speculations science has, in a sense, taken a tentative step beyond the strict confines of genetics. Genetics carries the web of life up to the synthesis of protein. Beyond that point the activity of many proteins, especially the enzymes, is best explained in terms of environment and allosteric interactions. This does not mean that genes produce proteins indiscriminately; or that once produced proteins are rid of genetic influence and free to muddle about as they choose. The environ-

ment in which proteins function is still genetically dominated; and the ability of proteins to function in that environment is still genetically imparted.

The point remains, however, that close to the nub of physical being there is a unique family of molecules with some capacity for independent action. And among these busy molecules, men such as Dr. Urry are investigating with the aid of optical rotatory dispersion. The picture they get may seem chaotic. It is a picture in which nothing is stable; in which there are no fixtures. Instead all is movement—the shifting, whirling, joining and disintegration of molecules. As one medical editor noted, the idea of "complicated construction in constant turmoil" is not an easy one to grasp. Yet, as much as anything else, it is the churning maelstrom of molecules that distinguishes the living organism from a pile of chemical dust.

Fortunately for medicine scientists are finding some order in this seeming turmoil. They are beginning to perceive, a little, how elemental atoms are interlaid into molecules; and how molecules both weave and are woven into cells out of which man himself is constructed. Science is, in fact, drawing closer to an understanding of life. And hand in hand with such understanding goes a better understanding of life's aberrations known as disease.

* * *

ELECTRICAL CONVERSION OF ATRIAL FIBRILLATION, J. J. Morris, Jr., R. H. Peter, and H. D. McIntosh, *Ann. Int. Med.* 65: 216, '66.

The authors analyze the results obtained in their series of 108 patients and review the results obtained by others (a total of 784 attempts including their own series). The prognostic significance of different factors, such as diagnosis, duration of the arrhythmia, the functional classification of the patient at the time of conversion, the ECG. findings, X-ray and hemodynamic observations, regarding the possible success of electrical conversion are evaluated. Also, the incidence of complications and mortality of the procedure is discussed. From their analysis they have arrived at the following conclusions:

That definite and distinct physiologic benefits occur in many patients with restoration of N.S.R.;—

That the technic of electrical reversion is highly effective and carries a low risk of complications; and that many patients not only can be restored to NSR, but can be maintained for prolonged periods of time. Regarding the selection of patients to be converted, they recommend that they be classified into three groups: (1) Those in whom there is an absolute contra-indication to conversion:—patients with digitalis intoxication, supraventricular arrhythmia with complete heart block, recurrent episodes of supraventricular tachycardia or with angina pectoris relieved with the onset of atrial fibrillation. (2) Those in whom the procedure should be deferred to a later date:—recent onset of supraventricular arrhythmia (if it persists after 7 days, cardioversion should be used); in patients who are candidates for cardiac surgery, cardioversion should be tried after adequate surgery is performed; in post operative cardiac patients, if conversion is attempted in the immediate post-operative period, a large percentage reverts to AF within 2 weeks (defer cardioversion to 8-12 weeks after surgery); AF in the course of hyperthyroidism, 50% will reverse to NSR spontaneously with return to euthyroid state and those who do not should then be cardioverted; and patients with recent history of systemic emboli, that should be anticoagulated for 8 weeks before cardioversion is attempted. (3) Patients in whom cardioversion would be of questionable value. It includes: those with slow A.F. without digitalis; patients intolerant to quinidine; patients with 2 or 3 adverse factors without other reasons for restoring sinus rhythm: the chances of maintaining NSR are so low at 8 and 12 months, that unless specific gains are to be expected, electrical reversion should be deferred; those who have been previously cardioverted without improvement and with early recurrence of A.F. and those with benign AF of long duration. (4) Patients who should undergo electrical reversion: those with history of systemic embolism, a prime reason for recommending cardioversion and every possible attempt should be made to maintain NSR; patients with no, or only one, adverse factor since their ability to maintain sinus rhythm is very high; patients with congestive heart failure, despite the presence of 2 or 3 adverse factors, and, finally patients who develop acute cardiovascular decompensation with the onset of arrhythmia, for example, with acute myocardial infarction or after surgery, a supraventricular tachycardia may be life-threatening and cardioversion should be attempted on an emergency basis. (Abstracted for the Middle Tennessee Heart Association by L. I. Arias, M.D., Nashville.)

Circulatory Changes Associated with Spontaneous Angina Pectoris and Circulatory Changes During the Pain of Angina Pectoris. (Am. J. Med., 41:935, and 947, 1966.)

A searching and complete analysis of the present situation of our knowledge of the events surrounding angina pectoris has been made. Looking for recorded objective information of the behavior of such a simple and fundamental measurement as blood pressure before, during and after an attack of angina, these authors find an extraordinary paucity. At most, only a dozen attacks of angina have been recorded at all satisfactorily.

What the literature reveals is that probably systemic hypertension accompanies angina regularly and that the hypertension is not necessarily caused by the pain itself. Much of other scattered observations during spontaneous angina suggests that left ventricular failure is part of the picture. That left-sided failure is part of the picture of angina was suggested nearly one hundred years ago. One of the confusing factors in the past observations is that attacks studied were produced by exercise or drugs, and thus it is difficult to separate the hemodynamic changes due to the stimulus from those specifically related to the angina. Hence, the study of spontaneous angina is necessary.

In a companion article in the same issue of *The American Journal of Medicine*, some new answers to the question of circulatory changes during spontaneous angina are given. Ten patients (17 attacks) were observed by continuous monitoring of intra-arterial blood pressure and, in some cases, pulmonary artery pressures. All patients exhibited systolic and diastolic hypertension which preceded the anginal pain in 86% of attacks. Increases in pulse rate were much less striking. Relief of pain, either by nitroglycerine or spontaneously, was associated with return of blood pressure to nearly normal or control values. Pulmonary artery pressures also were strikingly elevated.

In many patients, the frequency of occurrence of spontaneous angina was markedly diminished by the administration of digitalis and chlorothiazide diuretic drugs.

These new objective observations add strongly to the evidence that angina is associated with left ventricular failure. This idea fits well with the oft observed increase in atrial gallop sounds during angina, the symptoms of choking, and the relief of angina by assuming the upright posture when attacks are nocturnal. (Abstracted for the Middle Tennessee Heart Association, by Elliot V. Newman, M.D., Nashville.)

The Tennessee Medical Association

1967 ANNUAL MEETING

Memphis **April 13-15, 1967**
Sheraton-Peabody Hotel

- **PRESIDENT'S BANQUET**
Saturday Evening Social Event
- **TECHNICAL EXHIBITS**
Displays by Supply Houses
- **THE WOMAN'S AUXILIARY**
Statewide Annual Meeting
- **SPECIALTY SOCIETIES**
Independent Programs and Combined Programs
- **SPECIAL EVENTS**
Luncheons, dinners, etc., for
Specialty Groups
- **TMA SCIENTIFIC PRESENTATIONS—April 14-15**
Hear outstanding presentations by noted guest speakers on
Friday and Saturday mornings, April 14 and 15. Panels on
important scientific and Socio-economic subjects to be pre-
sented. (See preliminary program in this issue.)
- **SESSIONS OF THE HOUSE OF DELEGATES**
Official Business Meetings
Thursday and Saturday
- **OUTSTANDING GUEST SPEAKERS**

*Refer to March Issue of The Journal
for Complete Program*
TIMES — PLACES — SUBJECTS — SPEAKERS

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Preliminary Program
132nd Annual Meeting

TENNESSEE MEDICAL ASSOCIATION

Sheraton-Peabody Hotel, Memphis

April 13-15, 1967

Thursday, April 13

- 8:00 AM Registration Desk Opens.
Registration of Delegates.
- 9:00 AM Woman's Auxiliary to TMA (Holiday Inn—Rivermont)
- 12:00 NOON Tennessee Academy of Ophthalmology and Otolaryngology (Eye Section)
Tennessee State Orthopaedic Society Luncheon and Meeting
- 1:00 PM House of Delegates (Opening Session)
- 1:30 PM Tennessee Academy of Preventive Medicine and Public Health
Tennessee Industrial Medical Association
Tennessee Obstetrical and Gynecological Society (Holiday Inn—Rivermont)
- 2:00 PM Tennessee Academy of Ophthalmology and Otolaryngology (ENT Section)

Friday, April 14

- 7:15 AM Public Relations Breakfast
- 8:00 AM Registration
- 9:00 AM Reference Committees
Woman's Auxiliary to TMA (Holiday Inn—Rivermont)
- 9:00 AM TMA General Scientific Presentations:
Panel Discussion—"THE THYROID DILEMMA"
Moderator—*Isadore Cohn, Jr., M.D.*, Professor and Chairman Department of Surgery, Louisiana State University, New Orleans
Bentley P. Colcock, M.D., Boston, Mass.
William M. Law, M.D., Knoxville, Internist and Clinician
William Stephen Coppage, M.D., VA Hospital, Nashville, Endocrinological Research
- 10:30 AM Panel Discussion—"GOVERNMENTAL MEDICAL CARE"
Moderator—*Tom E. Nesbitt, M.D.*, Nashville
Erwin Witkin, M.D., Baltimore, Maryland, Medical Consultant, Bureau of Health, Insurance, U.S. Dept. of Health, Education and Welfare
Donovan F. Ward, M.D., Dubuque, Iowa, Immediate Past-President, American Medical Association
G. Baker Hubbard, M.D., Jackson, Tenn., President, Tennessee Medical Association
Wesley W. Hall, M.D., Reno, Nevada, Chairman, Board of Trustees, American Medical Association
- 12:00 NOON Tennessee District Branch—American Psychiatric Association
Tennessee Academy of Ophthalmology and Otolaryngology (Eye Section)
Tennessee Thoracic Society
- 1:00 PM Tennessee State Orthopaedic Society
- 1:30 PM Tennessee Chapter—American College of Surgeons
Tennessee Neurosurgical Society
Tennessee Obstetrical and Gynecological Society (Holiday Inn—Rivermont)
- 2:00 PM Tennessee Academy of Ophthalmology and Otolaryngology (ENT Section)
- 6:00 PM Tennessee Chapter—American College of Surgeons (Banquet)

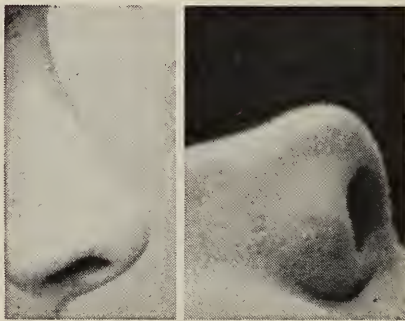
Saturday, April 15

- 7:15 AM IMPACT Breakfast
- 8:00 AM Registration
- 9:00 AM TMA General Scientific Presentations:
Panel Discussion—"CONTRACEPTION"
Moderator—*Sam P. Patterson, M.D.*, Memphis, Department of Obstetrics and Gynecology, University of Tennessee
Stewart A. Fish, M.D., Memphis, Professor and Chairman, Department of Obstetrics and Gynecology, University of Tennessee
Robert Chalfant, M.D., Nashville, Obstetrics and Gynecology
W. Powell Hutcherson, M.D., Chattanooga, Obstetrics and Gynecology
- 10:30 AM Subject—"PROJECTION OF CHANGES IN THE FUTURE OF MEDICAL PRACTICE"
By: *Bland W. Cannon, M.D.*, Memphis, Member of the Council on Medical Education of the American Medical Association
- 11:00 AM Guest Speaker—(Subject to be announced)
Charles L. Hudson, M.D., Cleveland, Ohio, President, American Medical Association, Diplomate, American Board of Internal Medicine
- 12:00 NOON Tennessee Diabetes Association
Tennessee Radiological Society
Tennessee Pediatric Society (Luncheon)
- 12:00 NOON Tennessee State Society of Pathologists
Tennessee State Society of Anesthesiology
- 1:00 PM House of Delegates (Second Session)
- 6:00 PM President's Banquet and Dance

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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

TMA's 1967 Annual Meeting Set for Memphis

● The 132nd Annual Meeting of the Association will be conducted April 13-15, 1967, at Memphis, with headquarters at the Sheraton-Peabody Hotel. This is a change from previous years since the Association's annual meeting now will begin at the end of the week rather than on Sunday. The meeting days are Thursday, Friday and Saturday. Highlights will include scientific programs presented by the TMA on Friday and Saturday mornings from 9:00 A.M. until Noon. Sixteen specialty societies will conduct their sessions; scientific and technical exhibits; the annual sessions of the House of Delegates; special awards to the Outstanding Physician of the Year, and others. TMA will present two outstanding panels on Friday. One on "The Thyroid Dilemma" and another on "Governmental Medical Care." The Saturday program will include a panel on "Contraceptives," and a timely presentation by Dr. Charles Hudson, President of the American Medical Association.

Dr. Bland Cannon, Memphis, a member of the Council on Medical Education of the AMA, will speak on the subject "Projection of Changes in the Future of Medical Practice."

Housing for Annual Meeting

● The reservation department of the Sheraton-Peabody Hotel will coordinate housing for those attending the TMA annual meeting. Every physician member of TMA has been mailed a brochure and a reservation form. You are urged to make your reservations early. Don't forget the change in the time of the week for the annual meeting, Thursday, Friday and Saturday, April 13-14-15.

House of Delegates

● The first session of the House of Delegates is scheduled for 1:00 P.M. on Thursday afternoon. The House will meet for its second session on Saturday afternoon, April 15th at 1:00 P.M.

Reference Committees

● Following the first session of the House, all reports, resolutions, and amendments will be assigned to Reference Committees. The Reference Committees will meet on Friday morning, April 14th, when members of the House of Delegates and any TMA member may appear before any Reference Committee for whatever testimony desired. After the hearings, the Reference Committees will prepare reports and present their recommendations to the House in the second session on Saturday afternoon, April 15th.

Specialty Societies

● Specialty societies and related medical organizations will hold sessions on all three days of the annual meeting. Sixteen groups will participate.

Social Events

● The principal social event will be the President's Banquet on Saturday evening, April 15th, in the Sheraton-Peabody Hotel. A social hour will precede the banquet, beginning at 6:00 P.M. The banquet will begin at 7:00 P.M. and followed with a dance, sponsored by TMA and will

include the popular music of Burl Olswanger and his orchestra from Memphis.

Having Trouble With Medicare Claims?

● If you or your patients are having difficulty in collecting for Medicare where direct billing is involved, it may be that insufficient or incorrect information is contained in the claim form.

At present in Tennessee, the state office in Nashville of the fiscal intermediary for Medicare is receiving 7,000 claims per day and an average total of approximately 30,000 claims per month. Of this number, approximately one in every seven claims are having to be returned for the lack of or insufficient information. The correct and complete information on the claim form will get an earlier payment.

Extended Care Facilities Under Medicare

● Social Security offices are releasing the names of extended care facilities in Tennessee where approval of their application to participate has been finalized. This is the new Medicare benefit that became effective January 1. Overall, some 2,500 facilities with a total capacity of well over 150,000 beds have met the certification requirements in the U.S. Only a limited number have been certified in Tennessee.

Medicare Payment For Deceased Patients

● It will no longer be necessary for widows, widowers, or other relatives to arrange for the appointment of a legal representative of a Medicare beneficiary's estate simply to collect a Medicare payment, according to the Bureau of Health Insurance. In some cases the legal costs will be equal to or even exceed the amount of the reimbursement under Medicare. Where there is no legal representative of the beneficiary's estate, and where none is expected to be appointed, Medicare will make payment to a surviving widow, widower, or other relatives.

Where the bill has been paid, the Title XVIII payment will be made (1) to the individual who paid part or all of the bill as creditor of the estate if he agrees to distribute the proceeds among any others who paid part of the bill, or to those who might be entitled under State law, or, (2) to a surviving relative on behalf of the estate, if the available closest relatives consent to the payment. Where the bill has not been paid, Title XVIII will reimburse the physician or supplier directly if he agrees not to charge in excess of the reasonable charges.

AMA Dues

● For those physicians who are aware of the advantages of membership in the American Medical Association and who feel that the dues are too high, it may be well to review some facts and figures. AMA membership last year was 210,938 and 165,712 were dues-paying members. AMA costs have increased just the same as the additional cost for running our State Medical Association. Here are some examples:

(1) In 1960, production of a typical page in AMA publications cost 11 cents. The same page cost 31 cents in 1966. (2) Real estate taxes have doubled from \$66,000 to \$112,000. The tax bill in 1965 for AMA was \$200,000. (3) Equipment, furniture and supplies have increased 15 percent. (4) Competitive salaries and employee benefits in the Chicago area have more than doubled. (5) Social Security taxes in 1960 amounted to \$160,000. In 1966, they were \$276,000, and additional increases for the future are built into the law. (6) Bulk mail rates have climbed 20 percent since 1960, with the result that it now costs \$43,000 more to mail the same number of copies of the AMA Journal. A one-page letter to each AMA member now costs \$11,000 for a mailing.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

85th General Assembly Convenes & Recesses

● The 85th Tennessee General Assembly convened on January 3, 1967 for a 15-day organizational session. On January 17th, with the organizational session completed, the General Assembly recessed for six weeks with reconvening scheduled for February 28th.

During the 15-day session Senator Frank C. Gorrell of Davidson County was elected Speaker of the Senate, a position which also makes Senator Gorrell the State's Lieutenant Governor. Representative James Cummings of Cannon County was elected Speaker of the House. Also elected were Mr. Charlie Worley of Sullivan County as Treasurer and Mr. William R. Snodgrass of White County as Comptroller.

On January 16th Buford Ellington was inaugurated as the 50th Governor of the State of Tennessee.

Prior to adjournment a joint resolution passed both houses calling for the General Assembly to meet for 60 legislative days upon their return February 28th and to recess until January 1968, at which time a 30-day session would be conducted. Constitutional amendments adopted by state-wide vote last November provided for a 90-legislative day session instead of a 75-calendar day session as in the past. It appears a majority of members of the General Assembly favor dividing the 90 days into two segments which would allow for annual sessions.

General Assembly Appoints Committees

● The appointment of all standing committees of the Senate and House was made during the 15-day organizational session. The committee to which most legislation concerning medical matters will be referred is the Public and Mental Health Committee in both houses.

Chairman of this Committee in the Senate is Mr. John Dugger (R) of Morristown. Senator Ray Baird (D) of Rockwood was named vice-chairman and Senator Calvin L. Cannon (R) of Athens is secretary. Leaders of the House Public and Mental Health Committee are Mr. Jim Caldwell (D) of Chattanooga and Mr. Milton Hamilton (D) of Union City as co-chairmen. Mr. Forrest Bridges (D) of Oak Ridge is vice-chairman and Dr. John Peebles (R) of Memphis will serve as secretary. The 26-member House committee also includes TMA members Dr. Dorothy Brown (D) of Nashville and Dr. G. H. Berryhill (R) of Jackson.

TMA Co-sponsors Capitol First Aid Station

● A plan to provide members of the General Assembly with the services of a first aid station on the 2nd floor of the Capitol, opposite the legislative chambers, became a reality during the organizational session. Jointly sponsored by TMA and the Tennessee Hospital Association, the station operated during the last half of the 15-day organizational session after a joint resolution was unanimously adopted by both the Senate and House authorizing establishment.

All necessary equipment was made available by three Nashville hospitals — Vanderbilt, Baptist and St. Thomas — and

by two Nashville supply houses -- Nashville Surgical Supply and Physicians Service, Inc.

THA provided the services of a professional nurse during the station's days of operation and a volunteer physician member of TMA was on duty. This plan will also be followed when the General Assembly reconvenes February 28th until adjournment.

A large number of TMA members have volunteered to staff the station and assignments for specific days have been made. Although no emergency situations occurred during the initial establishment of the station, a large number of legislators expressed their appreciation for the service being initiated by the two groups.

TMA Legislative Bulletin to Be Published

● As in the past, a bulletin reporting happenings of the Legislature, of interest to the medical profession, will be published by the Public Service Office of TMA. The bulletin will be mailed on an "as needed" basis due to the somewhat undetermined length of the legislative session when the General Assembly reconvenes February 28th.

All members of the TMA Legislative and Public Policy Committee, all contact doctors, and presidents and secretaries of county medical societies will receive the bulletin. Any interested member will be added to the mailing list upon request. These pages of the Journal will also carry pertinent information regarding legislative proposals each month.

90th Congress Convenes

● When the 90th Congress convened January 10th, Tennessee had three new members of the 11-man congressional delegation. Senator Howard Baker, Jr. (R) of Knoxville, Ray Blanton (D) of Adamsville representing the 7th congressional district, and Dan Kuykendall (R) of Memphis representing the 9th congressional district were sworn in as new members.

Seated were 246 Democrats and 187 Republicans as compared to 295 Democrats and 140 Republicans in the previous Congress. Republicans won 52 seats in the House which were previously held by Democrats and lost 5 for a net gain of 47 seats.

Several bills have already been introduced that would amend the Medicare law and a new version of the Hart Bill, regarding medical restraint of trade, has been submitted.

TMA Legislative Committee Sets Annual Washington Visit

● The annual visit with members of the Tennessee congressional delegation by members of the TMA Legislative and Public Policy Committee has been scheduled for March 2, 1967.

Physicians representing each congressional district will call on their congressman and each Senator will be visited by the TMA delegation. A luncheon for the elected representatives will be hosted by TMA in the Members Dining Room of the Rayburn Building.

The presidents of four allied health groups were also invited to accompany the TMA delegation. Representatives of the Tennessee Hospital Association, the Tennessee Veterinary Medical Association, the Tennessee Pharmaceutical Association and the Tennessee State Dental Association are expected to participate in the activities.

The one-day affair has been conducted annually for the past seven years and has afforded the Legislative Committee and other members the opportunity to discuss first hand legislation of interest and concern to the medical profession with the Tennessee members of Congress.

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-4211, Vanderbilt University
Hospital, Nashville, Tennessee 37203

Address organizational matters to Jack E. Ballentine,
Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor

Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn.

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

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FEBRUARY, 1967

EDITORIAL

SIX MONTHS OF MEDICARE

Many of us have engaged in the legitimate speculation of how Medicare would affect the delivery of medical care among the some 19 million of our citizens over the age of 65 years, whether medically indigent or "well-heeled." The speculations dealt with the numbers who would avail themselves of the law's provisions, the technical and administrative aspects of billing and payment, whether to the attending doctor or the hospital used, the costs, the impact upon medical education and upon certain population groups, as for example, those usually seeking a haven in Veterans Hospitals or in municipal or state tax supported hospitals.

Quite obviously some of these questions cannot be answered at this early date. Certain of the shifts in the pattern of medical care will require months or several years to reach the level of mid-tide. So too there is certain to be a lag in the monetary cost which will be gauged better as time provides a more accurate level.

Nevertheless, one must eye with interest what may have been learned to date for it at least should give us an index to trends. We have only the official report by Robert M. Ball, Commissioner of Social Security, as of December 29, 1966, which one assumes to have been given with fidelity.

He summarized the costs of delivering medical care for the first 6 months as follows. More than 2.5 million oldsters have been hospitalized within 6 months to the date of the report, for which the hospitals had been paid 1 billion dollars. During this period it appears, by the receipt of notices to the Social Security Office, that 3.5 million patients had sought medical help of their physicians, and that 100 million dollars had been paid to doctors for their services. (Undoubtedly there is a greater lag in payment of physician's fees than of hospital fees because of inadequate or improper "paper work," as indicated on the Executive Director's page of this month's JOURNAL.)

The government's Report states that the 700 district offices administering Medicare have provided statistical sampling. From this it appears that patients over 65 years of age now occupy 30% of all hospital beds as compared to 25% before July 1, 1966.

The well-known Profession Activity Study by Dr. Vergil Slee, of Ann Arbor, sponsored jointly by the American College of Physicians, American College of Surgeons and the American Hospital Association, released figures from a statistical analysis of patients in 100 short-term hospitals ranging in size from 46 to 709 beds.¹ Comparing discharges from hospitals, excluding maternity cases, for the third quarter of 1965 and 1966, they rose for those over 65 years of age, from 18.9 to 20.9% respectively, a 10% rise for this age group. The average stay rose from 13.9 to 14.6 days, a 5% rise. The common pattern of admissions for malignancy, diabetes and acute coronary disease dropped a little as a percentage of the total, but admissions for certain elective treatment increased sharply, as for inguinal hernia, 49%, intravenous pyleography, 47%, removal of cataract, 43%, and prostatectomy by 25 per cent.

¹ Hospital News of the Week, Medical World News, pp. 13. Dec. 23, 1966.

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It may be of interest that in one Tennessee community the figures generally substantiate the trends mentioned. The Health and Hospital Planning Council of Nashville compared admissions for April-June 1966 with the first three months of Medicare, they were 13% and 18% respectively. The average duration of hospitalization was 1 day longer after July 1.

Another set of interesting and significant statistics released by the government is the choice of medical insurance at the cost of 3 dollars monthly premium. Of some 17.5 million recipients of monthly Social Security, railroad retirement, or civil service checks, 90% have elected to have 3 dollars monthly withheld for this premium. It is also said that of the 2.5 million not beneficiaries of the above groups, cash payments have been made for this premium by 90% upon notice of the first premium due and an additional 6% on the second notice.

From Mr. Ball's report, it appears that 6,700 hospitals are participating in Medicare with 98% of the short-term beds in the country thus available. Some 250 hospitals have failed to meet required standards for approval, and a few have failed to comply with the Civil Rights Act. It also appears that about a hundred hospitals which could meet the standards have not applied for participation.

The administration of the program at the time of the Report from Washington was through 74 Blue Cross organizations (covering about 90% of participating hospitals) and a few other organizations. Medical insurance was being administered by 33 Blue Shield plans and 15 insurance companies, selected on a geographic basis.

It should be recalled that the implementation of Medicare is under review by representatives of various professional groups which have a consultative and/or advisory role to HEW, drawn from the American Medical Association, American Hospital Association, commercial insurance companies, Blue Cross, Blue Shield, the Public Health Service and the Welfare Department.

In addition to watching the trends of the first 6 months of Medicare in terms of possible gathering momentum, it will be of interest to learn what impact the use of extended

care facilities will make upon hospitalization. The required 3 days in a general hospital to establish eligibility for care in an extended care facility has obvious implications in reasons for hospitalization. Because of the dearth of beds in the extended care area will periods of hospitalization in general hospitals need to be extended? Also, because of the shortage of beds for extended care the full impact in this area of care will not be known for many months.

The Government Report predicted that as of January 1, 2,500 facilities with 150,000 beds would be able to meet the requirements of certification for extended care. It also predicted that at a given time some 50,000 to 65,000 oldsters would need the care of such facilities. Presumably many of the 150,000 beds are not related to a general hospital. The American Hospital Association has record of 45,000 beds in 655 community hospitals. It reports that construction or plans should provide 87,000 beds for extended care by 1,375 community hospitals by 1968.¹

Periodically we will need to follow the initial trends as of the first 6 months of Medicare. Stable levels of usage, cannot be anticipated for some years, and possibly many years, particularly as inevitably additional governmental programs of medical care are imposed. Under such circumstances hospital care, medical care and costs will have a leapfrogging and confusing effect. This, unless our leaders profit by the accumulated advice from the European capitals on Medicare as summarized by *U. S. News and World Report*.² "As you embark on the road to socialized medicine, do not travel too fast or too far. Otherwise, the time will come when you will find it advisable—as many countries in Europe now are discovering—to retrace some of your steps, in the interests of doctors, patients and the whole community."

R. H. K.

¹ Hospital News of the Week, Medical World News, pp. 13. Dec. 23, 1966.

² Europe's Advice to U. S. On Medical Care, *U. S. News and World Report*, 62: (No. 4) 64, (Jan. 23) 1967.

IN MEMORIAM

DYER, LEX, Cookeville. Died 10, December, 1966, Aged 84. Graduate of Medical Department, University of Nashville, 1909. Member of Putnam County Medical Society.



HAUN, LOUIS ALONZO, Knoxville. Died 3, December, 1966, Aged 87. Graduate of Medical Department, Lincoln Memorial University, Knoxville, 1902. Member of Knoxville Academy of Medicine.



BUTTRAM, WILLIAM ROSS, Chattanooga. Died 5, December, 1966, Aged 76. Graduate of Atlanta College of Physicians and Surgeons, 1913. Member of Chattanooga-Hamilton County Medical Society.



PAPPAS, NICHOLAS D., Knoxville. Died 25, November, 1966, Aged 70. Graduate of Marquette University School of Medicine, Milwaukee, 1933. Member of Knoxville Academy of Medicine.



KEENER, GEORGE GARFIELD, Kingsport. Died, 26 November, 1966, Aged 88. Graduate of Medical Department, Lincoln Memorial University, Knoxville, 1905. Member of Sullivan-Johnson County Medical Society.



ANDERSON, W. B., Nashville. Died 9, January, 1967, Aged 93. Graduate of Vanderbilt University School of Medicine, 1894. Member of Nashville Academy of Medicine.



DANLEY, JAMES WALTER, Lawrenceburg. Died 6, January, 1967, Aged 84. Graduate of Vanderbilt University School of Medicine, 1905. Member of Lawrence County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The annual meeting of the Memphis and Shelby County Medical Society was held at the Holiday Inn-Rivermont on December 6th. The program included annual reports, the Presidential Address by the outgoing President, Dr. A. Roy Tyrer, presentation of fifty-year certificates and pins, and three special recognition awards.

Dr. R. A. Calandrucchio assumed the presidency of the Society for 1967 and Dr. B. G. Mitchell was named President-Elect to succeed Dr. Calandrucchio in 1968. Other offi-

cers are Dr. Robert McBurney, vice-president; Dr. Joseph Chisolm, secretary; and Dr. W. H. Gragg, treasurer.

Recipients of the pins presented in recognition of fifty years in the practice of medicine were Drs. Samuel B. Anderson, D. H. Anthony, E. G. Campbell, C. H. Glover, John A. McIntosh, W. Likely Simpson, and R. Lyle Motley.

Special recognition awards were presented to Dr. L. W. Diggs for his research on hemophilia, to Mr. Wassell Randolph for his leadership in medical education and his service on the U. T. Board of Trustees, and to Mr. Danny Thomas, founder of St. Jude Hospital. Mr. Thomas and Mr. Randolph were also made Honorary Members of the Society.

The January 3rd meeting of the Society was held in the Institute of Pathology, University of Tennessee. The scientific program entitled "The Mid-South Medical Center Council" was presented by Dr. Bland W. Cannon, Mr. Frank Norfleet and Mr. Frank C. Holoman. A panel discussion followed the presentation.

Marshall County Medical Society

Members of the Marshall County Medical Society were entertained at a dinner on December 19th, hosted by the outgoing president, Dr. H. A. Morgan. Dr. K. J. Phelps will succeed Dr. Morgan as President of the Society for 1967. Dr. Jos. Von Almen was named Secretary succeeding Dr. W. A. Walker. Others present were Drs. Kenneth Brown, W. L. Taylor, J. E. Tinnell, Hoyt Harris, Jere Rogers and W. S. Poarch.

Hamblen County Medical Society

Physician members from Hamblen, Jefferson and Grainger Counties, their wives and guests attended the Society's annual Christmas banquet and installation of officers at the Morristown Country Club on December 13th. Dr. E. Gene Lynch, Morristown, assumed the presidency of the Society for the coming year, succeeding Dr. O. L. Merritt of Dandridge. Other officers for 1967 are Dr. J. B. Sams, Jefferson City, Vice-President, and Dr. C. H. Helms, Morristown, Secretary. Dr. J. W. Richardson, Morristown, was named delegate to the Tennessee Medical

Association and Dr. E. D. Allen of White Pine, alternate delegate.

Knoxville Academy of Medicine

The scientific program for the meeting of the Academy on December 13th was presented by Dr. E. Park Niceley. Following the Presidential Address by Dr. Perry M. Huggin, members of the Society heard annual reports from the Judicial Council and chairmen of committees.

New officers of the Academy for 1967 are: Dr. George A. Zirkle, Jr., President, succeeding Dr. Huggin; Dr. Jacob T. Bradsher, Jr., President-Elect; and Dr. Norma Walker, Vice-President. Dr. R. J. Leffler was re-elected Secretary-Treasurer.

Chattanooga-Hamilton County Medical Society

A business meeting of the Society was held in the auditorium of the Interstate Building on December 6th. Dr. Frank B. Graham, chief of staff, surgery, at Erlanger Hospital, assumed his post as incoming president, succeeding Dr. George Young. Dr. Harry Stone was chosen president-elect, to begin his term in January, 1968. Dr. Durwood Kirk was reelected secretary-treasurer.

Coffee County Medical Society

Dr. Lloyd Hollister of Tullahoma was elected President of the Coffee County Medical Society at the group's annual Christmas meeting and banquet on December 13th. The banquet was held at the Manchester Golf and Country Club. Other new officers are Dr. Dan Calhoun of Manchester, Vice-President; Dr. Claude Snoddy, Tullahoma, Secretary-Treasurer; Dr. Coulter Young, Manchester, delegate to the Tennessee Medical Association; and Dr. Hollister was named alternate delegate.

Dr. Charles Webb of Tullahoma was selected to be recommended by the group for the post of county medical examiner, the appointment to be made by the County Quarterly Court in January.

Hickman-Perry County Medical Society

The Hickman-Perry County Medical Society held its regular monthly meeting at

the Hohenwald Bank and Trust Community Room on December 6th, following a dinner at the Hohenwald Recreation and Golf Club for members and their wives.

The rising incidence of animal rabies in the area was discussed and a recommendation was made to be submitted to the Tennessee State Department of Public Health for initial control of the problem.

Dr. Edgar Akin is President of the Society for 1967, and Dr. Parker D. Elrod has been re-elected Secretary.

Nashville Academy of Medicine Davidson County Medical Society

The Society's annual banquet and installation of officers was held on January 10th at the Hermitage Hotel. Remarks by outgoing and incoming presidents were highlights of the program. Dr. Greer Ricketson assumed the presidency succeeding Dr. Wm. F. Meacham. Dr. Luther Beazley has been named president-elect to take office in 1968 and Dr. Frank Womack was reelected Secretary-Treasurer.

A pin recognizing fifty years in the practice of medicine was presented to Dr. William Higginson.

NATIONAL NEWS

The Month in Washington (From the Washington Office, AMA)

At a cost of nearly \$1 billion, more than six million older persons got hospital and medical benefits during the first six months of the medicare program. Social Security Commissioner Robert M. Ball expressed satisfaction with the overall operations so far of the health insurance program for the elderly. But Ball warned of bed shortages in the nation's capital, in various New England states, and in most rural areas when a new medicare benefit of nursing home care went into effect January 1. He estimated that 50,000 to 60,000 beds would be needed for extended care in nursing homes.

The Commissioner recommended a number of changes in the program. He urged that medicare benefits, which apply to persons 65 or older, be extended to 1.3 million

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David M. Wayne, M.D.

Phone: 325-9159

Beckley Mental Health Center

109 E. Main Street, Beckley, W. Va.

W. E. Wilkinson, M.D.

Phone: 253-8397

Charleston Mental Health Center

1206 Quarrier St., Charleston, W. Va.

Malcolm G. MacAulay, M.D.

Phone: 344-3578

Mental Health Clinic

Professional Building, Wise, Va.

Pierce D. Nelson, M.D.

Phone: 328-2211

disabled persons. He said the major improvement needed in the Social Security program is an "across-the-board" increase in benefits. Overall benefits to be paid out in 1966 will rise from \$21 billion in 1966 to \$25 billion in 1967, he noted. President Johnson has announced he will seek a boost of about 10 percent in Social Security benefits in the next Congress.

Ball's report on the first six months of medicare included: About 2.5 million elderly persons received free hospital care and 3.5 million benefited from medical services. . . . Since medicare began July 1, 1966, hospital occupancy increased 5 percent, as expected. Thirty percent of all hospital beds were occupied by those 65 or older at the end of 1966. . . . About 6,700 hospitals now are participating in medicare. About 250 hospitals were excluded because they did not meet minimum standards, and 75 hospitals because of racial discrimination. . . . *Payments to doctors and skilled medical personnel, such as radiologists, have taken too long.* . . . Over-crowding of hospitals in various "isolated" incidents. . . . Almost all of 17.5 million persons who signed up for additional medical insurance at a premium of \$3 maintained their payments.

Seventeen hospitals in five states declared ineligible for federal funds because of failure to comply with provisions of the 1964 Civil Rights Act were granted public hearings by the Public Health Service in Alabama, Louisiana, Mississippi, South Carolina, and Texas. A PHS spokesman said: "Discriminatory practices found at the hospitals include the segregation of patients . . . an absence of Negro physicians . . . and the segregation of training facilities."

Senator George D. Aiken, R., Vt., proposed a nine-point program to liberalize benefits under the government's medicare plan for action by Congress. One would extend medicare drug coverage to prescriptions for old people whether or not associated with hospital confinement. A similar plan was included in a Senate-passed tax bill last summer but was killed in a Senate-House conference. Other Aiken proposals would eliminate deductible and co-insurance features, waiting periods and enrollment deadlines from the medicare plan, lower the

65 year age requirement for women to 62, and permit payment of medical specialist fees customarily provided by hospitals.



The National Advisory Cancer Council reported that, although cancer is still on the increase, more people are being cured of it than ever before. The report, titled "Progress against Cancer," shows that 30 years ago there were 144,774 cancer deaths in the United States, a crude rate of 112.4 per 100,000 of the population. In 1967 an estimated 305,000 deaths will occur, bringing the rate up to 153 per 100,000, according to the report. On the other hand, there has been an improvement in the cure rate. In 1937, less than one in five cancer patients survived five years without evidence of disease, but currently about 35 percent, or better than one in three are saved. There is good reason to believe, the report states, that this favorable trend will continue.

Intensive study of six types of cancer is recommended: Cancer of the breast, which has shown little improvement in incidence or mortality for about 30 years; the lymphomas, one of which, Hodgkin's disease, has been cured in 40 percent of cases in a localized stage; chronic leukemia and multiple myeloma, for which drug treatment should be greatly improved; lung cancer, which continues to increase, particularly in both men and women smokers; and uterine cancer, which has been significantly reduced and might be almost totally eradicated by early detection with the "Pap" smear.



Expenditures on prescription drug research and development reached a new high, but fewer new products actually reached the market in 1966 than during any single year on record. C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, said that the situation was attributable to several factors, including difficulties encountered under federal drug regulations. He said that the 1962 federal drug amendments had necessitated increasingly lengthy, costly periods for manufacturers to develop technical information required by the government. Stetler added

that more time also has been required by the Food and Drug Administration for processing applications.

Total research and development expenditures during 1966 were estimated by Stetler at about \$400 million. He said that only 11 basic new products had been marketed in the year, compared with 23 in 1965, 17 in 1964, 18 in 1963, 28 in 1962, and 41 in 1961. The peak year was 1959 when 63 new products were introduced. A PMA survey shows that a principal focus of the million-dollar-a-day search by industry for new pharmaceuticals is on drugs acting on the central nervous system and sense organs. These include sedatives, stimulants, tranquilizers and analgesics.

Stetler said that such drugs accounted for \$37.1 million or 19 percent of the \$194.7 million spent in 1965 on applied research and development by 42 of the nation's largest prescription drug firms.

MEDICAL NEWS IN TENNESSEE

University of Tennessee College of Medicine

At the winter commencement exercises, held December 18th at Municipal Auditorium, degrees were awarded to 130 candidates from the Medical Units, and marked the first College of Medicine class to be graduated under the term system. The College has been admitting new students on the term system since September 1963 and the final class admitted under the quarter system was graduated last June. As a result, this class of 77 candidates for the M.D. degree was the single largest class ever to have been graduated from U.T. Another first was the certification of three candidates in physical therapy, the first graduates of the School of Physical Therapy which was established September, 1965. Thirty-four degrees were awarded to graduates in Dentistry and the remainder to candidates from the School of Basic Medical Sciences, the Graduate School-Medical Sciences, and paramedical divisions.

The commencement address entitled

"Where Is The Individual?" was delivered by Chancellor Homer F. Marsh.

Dr. Jerry Robert Luther, Memphis, was the recipient of the Charles C. Verstandig Award, presented annually to the student who has overcome the most obstacles toward becoming a physician.



Several UT faculty members were program participants at the 78th annual meeting of the Southern Surgical Association held recently in Boca Raton, Florida. Dr. Harwell Wilson and Dr. Louis G. Britt, both of general surgery, presented a paper describing the method of surgical management of iliofemoral thrombosis used at UT, reporting on the results of 39 operations. Dr. James Pate, thoracic surgery, and Dr. Colby Gardner of radiology, reported on their research in improved methods of diagnosis of pericardial effusion.



Dr. Audrey Roberts is the recipient of a \$15,023 Research Career Development Award from the USPHS. The title of her project is "Antigen-Antibody Relationship in Immune Responses" and is sponsored by Dr. Robert C. Randtorff . . . Dr. James N. Ettledorf and Dr. Alvro M. Camacho have received a grant of \$13,460 from the Eli Lilly Company for support of their studies in the evaluation of Bolamatalate as an anabolic in children . . . Dr. Rodney Y. Wolf has been awarded \$3,369 by Eli Lilly for support of his studies of the effect of Cephalothin and Cephaloridine soaked vascular prostheses on postoperative infection.



Three faculty members of the Medical Units will serve various national and state medical societies and institutes in their respective fields during the year. Dr. Kenneth E. Avis, associate professor of pharmacy, has been invited to serve as a consultant to the National Cancer Institute in the formulation of anti-cancer agents in dosage of pharmaceutical form. Dr. Elmore H. Taylor, chairman of the department of pharmacognosy, has been elected vice-president of the American Society of Pharmacognosy for

1967-68. Dr. Taylor will assume the presidency in 1968. Dr. Bob A. Freeman, associate professor of microbiology, will serve as president of the Kentucky-Tennessee Branch of the American Society for Microbiology for 1967.

★

The dedication of the new Philip M. Lewis Eye Clinic of the University of Tennessee College of Medicine will be held during the annual meeting of the Memphis Society of Ophthalmology, March 11-13 in Memphis. This new modern out-patient facility for the care of eye patients is being named in honor of Doctor Philip M. Lewis, who has been a faculty member of the College of Medicine for 43 years and Chairman of the Division of Ophthalmology for 23 years. The many students and residents who have trained under Dr. Lewis have contributed financially to the construction and to the equipping of the clinic, along with additional support from the University, the City of Memphis Hospitals, and from grant sources.

★

The Newcomen Society in North America, an international organization of business and professional leaders, has honored U.T. for its contributions to the progress of mankind. Newcomen officials recognized U.T.'s contributions to "Tennessee, the United States, and the Free World" at a banquet in Knoxville on November 18th.

The Newcomen Society in North America, affiliated with the Newcomen Society of England, each year selects a limited number of leading industries, business firms and educational institutions for special recognition.

Vanderbilt University School of Medicine

Vanderbilt University has announced plans to spend \$200 million over the next 20 years to expand its medical facilities, including construction of a new, 20-story hospital. Dr. Randolph Batson, dean of medical affairs, stated that the expansion would increase the total number of students at the medical center from approximately 800 to 1,700 by 1986. This increase would include a rise from 317 undergraduate and graduate medical students to a total of 655. The oth-

ers would include nurses, interns, resident and similar students. The faculty and staff at the medical center would increase from the present 602 to almost 1,600 during the 20-year period. Bed space at the hospital would almost triple during the 20 years, from 509 in the present facility to nearly 1,500 in the new one.

The first phase of the construction program would include the first 12 stories of the hospital, expansion of existing medical library facilities, a medical science and animal unit, a 550-seat auditorium for medical lectures and professional meetings, a school of allied health sciences, and similar work. It is expected that many of the projects will pay for themselves, while others will be financed by private sources.

★

Dr. Stanley W. Olson, former Dean of the Baylor University School of Medicine, has been named Director of the Midsouth Regional Medical Center to be established at Nashville and will hold an appointment as Professor of Medicine.

The planned center, which was announced earlier this year, will be a cooperative effort of the Vanderbilt Medical School and Meharry Medical College and will serve Middle and East Tennessee and Southern Kentucky. The center will be used for planning and upgrading services in the fields of heart disease, cancer, stroke, and related diseases.

★

Dr. Joseph Weinreb, Director of the Worcester, Massachusetts Youth Guidance Center since 1947, and who helped found the American Academy of Child Psychiatry, has been appointed as Associate Professor of Psychiatry.

★

The Justin and Valere Potter Foundation has announced that the Justin Potter Merit Scholarships will be increased from five to six, beginning in September 1967. The scholarships cover four years of medical training in the School of Medicine, maintaining some 20 merit scholarships. The four-year scholarships amount to \$2500 annually for each student—a total of \$10,000 for the four years of study. The awards are made on the basis of merit alone.

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Treatment and research to help infant victims of birth defects will continue this year at the Birth Defects Center under a double grant of \$81,637 from the National Foundation-March of Dimes. Of this \$58,839 is for renewed support for the seventh year of operation of the Birth Defects Center and for concentration on clinical research. An additional \$22,798 is awarded to expand the Center's treatment services.



The Deafness Research Foundation has announced an award of \$7,000 for a project aimed at finding cures for deafness. It will help sponsor the research of Dr. Paul H. Ward.



The Commonwealth Fund has announced a \$500,000 grant to the School of Medicine to help expand its potential as the hub of a university medical center of regional and national stature. The grant will be applied toward the space needs of two of the school's most vital components—the Department of Medicine and the Clinical Research Center.



Professor Luther Christman of the University of Michigan has been appointed as Dean of the School of Nursing and Director of Nursing at Vanderbilt University Hospital. He is also appointed Professor of Sociology and Anthropology at the University, as well. He will be the first male dean of a nursing school in the United States. Lawrence E. Souza, also of the University of Michigan has been appointed as Assistant Director of the Hospital for Nursing.

PERSONAL NEWS

Dr. Joseph W. Johnson, Jr., Chattanooga, a leader in the founding of the local Mental Health Association, is the recipient of the 1966 Kiwanis Distinguished Service Award. Dr. Johnson's contributions in the field of mental illness were recognized in 1953 by his appointment to the Board of Trustees to the Tennessee Department of Mental Health, a position he still holds.

Dr. Frank London, Knoxville, was elected chief of staff of University Hospital, December 2nd, replacing **Dr. I. Ried Collmann**. **Dr. Robert Lash** was named secretary.

Dr. James C. King, Jr., formerly of Hopkinsville, Kentucky, has begun the practice of pediatrics in Clarksville. Dr. King is associated with **Dr. E. R. Atkinson** and **Dr. Harold Vann**.

Dr. James O. Fields, Milan, has been named vice-chairman of the section on general practice of the Southern Medical Association for 1967.

Dr. William M. Doak, Nashville pediatrician, has been named president of the medical staff at General Hospital, succeeding **Dr. Everett Clayton, Jr.**, obstetrician and gynecologist. Other officers of the medical staff at General are **Dr. Joseph M. Miller**, president-elect, and **Dr. Roger Burrus**, secretary-treasurer.

Dr. Lloyd Hollister, Tullahoma, has been named to the Professional Advisory Committee of the Tennessee Mental Health Association.

Dr. J. Leo Wright, Memphis, presented a paper at the Fifth World Congress in Cardiology in New Delhi, India. Dr. Wright reported on research being conducted at Baptist Hospital in high blood pressure.

Governor Ellington has announced that **Dr. R. H. Hutcheson** will continue as Tennessee Commissioner of Public Health, a position he has held for 23 years. **Dr. Nat T. Winston, Jr.** has been appointed by the Governor to a second term as State Mental Health Commissioner.

Dr. Charles E. Sienknecht, Knoxville, has been installed as chief of staff of St. Mary's Hospital, succeeding **Dr. A. L. Jenkins**. **Dr. Travis Morgan** was named vice chief and **Dr. Hubert Hill**, secretary.

Dr. Gene Caldwell has joined **Dr. L. F. Preston** and **Dr. Dan Thomas** on the medical staff at the Oak Ridge Children's Clinic. Dr. Caldwell was formerly chief of pediatric services at the U. S. Naval Hospital in Memphis.

Dr. W. Andrew Dale, Nashville, has been named president-elect of the Baptist Hospital medical staff to succeed **Dr. D. Scott Bayer** in 1968. **Dr. James Phythyon** has been re-elected secretary-treasurer.

Dr. Russell W. Mayfield, Bells, has been elected to active membership in the American Academy of General Practice.

Dr. McCarthy DeMere, plastic surgeon and instructor of forensic medicine at Memphis State University School of Law, has been named chairman of the Juvenile Court Advisory Council.

Dr. Walter S. E. Hardy, Knoxville, was the recipient of one of two top awards presented at Knoxville College's National Achievement Program on December 4th. Dr. Hardy was named "Omega Man of the Year" by Beta Epsilon Chapter of Omega Psi Phi Fraternity.

Dr. R. H. Kampmeier, Nashville, was invited to Lexington on January 13 to take part in the Medical Grand Rounds of the Department of Medicine, University of Kentucky College of Medicine.

ANNOUNCEMENTS

Instructions to Contributors

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If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

Course in Laryngology and Bronchoesophagology

The Department of Otolaryngology of the Illinois Eye and Ear Infirmary and the College of Medicine of the University of Illinois at the Medical Center, Chicago, will conduct a postgraduate course in Laryngology and Bronchoesophagology from April 10 through 22, 1967. The course is limited to fifteen physicians and will be under the direction of Paul H. Holinger, M.D. Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures. Interested registrants should write to the Department of Otolaryngology, College of Medicine of the University of Illinois at the Medical Center, P. O. Box 6998, Chicago, Illinois 60680.

New Orleans Graduate Medical Assembly

The 30th annual New Orleans Graduate Medical Assembly, to be held March 6-9, 1967, will include lectures, medical motion pictures, symposia, clinicopathologic conference, technical exhibits, three round-table luncheons, planned entertainment for visiting ladies, and other features. The program is acceptable for thirty and one-half accredited hours by the American Academy of General Practice. For information write to the Secretary, New Or-

leans Graduate Medical Assembly, Room 1528, 1430 Tulane Avenue, New Orleans, La. 70112.

Course on Arthritis for Internists

The American College of Physicians will sponsor a five-day postgraduate course February 27-March 3 on "Arthritis and Related Disorders" in New York City. The course will be given at the New York University Medical Center, 550 First Avenue. One of twenty postgraduate courses being held by the ACP throughout the U.S. during the current academic year, it is designed to help keep practicing internists abreast of new information on the causes, diagnosis and management of arthritis and related diseases of the joints and bones. Internists attending will receive detailed instruction in rheumatoid arthritis, gout, osteoarthritis and other related problems such as low back pain and osteoporosis of the spine. For information, write to: The American College of Physicians, 4200 Pine Street, Philadelphia, Pa. 19104.

Calendar of Meetings, 1967

State

April 13-15	Tennessee Medical Association Annual Meeting, Sheraton-Peabody, Memphis
-------------	---

Regional

March 6-9	New Orleans Graduate Medical Assembly, Roosevelt Hotel, New Orleans
March 16-18	Southern Society of Anesthesiologists, Fort Sumter Hotel, Charleston, S. C.
March 20-23	Southeastern Surgical Congress, Americana Hotel, Bal Harbour, Florida
April 10-13	Southwestern Surgical Congress, Del Webb's Towne House, Phoenix, Arizona
May 11-13	Mid-Central States Orthopaedic Society, Sheraton-Prom Motel, Kansas City, Mo.

National

March 12-15	International Academy of Pathology, Sheraton Park Hotel, Washington, D.C.
March 19-24	American College of Allergists, The Roosevelt, New Orleans
April 3-5	American Academy of Pediatrics, Hilton Hotel, San Francisco
April 7-9	American Society of Internal Medicine, St. Francis Hotel, San Francisco

April 9-13	American Urological Association (Southeastern Regional) Hollywood Beach Hotel, Hollywood, Florida	May 3	American Cancer Society, Inc., Sheraton-Dallas Hotel, Dallas, Texas
April 10-13	Industrial Medical Association, Americana Hotel, New York	May 4-6	American Gynecological Society, Arizona Biltmore Hotel, Phoenix, Arizona
April 10-14	American College of Physicians, Fairmont Hotel, San Francisco	May 6	American College of Psychiatrists, Annual Meeting, Detroit
April 11-13	American Surgical Association, Broadmoor Hotel, Colorado Springs	May 7-12	American Psychiatric Association, Cobo Hall, Detroit
April 17-19	American Association for Thoracic Surgery, Americana Hotel, New York	May 18-21	American Association of Plastic Surgeons, Royal York Hotel, Toronto, Canada
April 17-19	American Proctologic Society, Jung Hotel, New Orleans	May 21-24	American Thoracic Society, Penn-Sheraton Hotel, Pittsburgh
April 17-20	American College of Obstetricians and Gynecologists, Hilton Hotel, Washington, D. C.	May 25-27	American Gastroenterological Association, Broadmoor Hotel, Colorado Springs, Colo.
April 24-29	American Academy of Neurology, San Francisco Hilton Hotel, San Francisco	May 28-June 1	American Dermatological Association, Broadmoor Hotel, Colorado Springs, Colo.
April 27-28	American Pediatric Society, Seaside Hotel, Atlantic City, New Jersey	May 29-31	American Ophthalmological Society, The Homestead, Hot Springs
April 30-May 4	International College of Surgeons (North American Federation) Americana Hotel, Bal Harbour, Fla.	May 29-June 2	American Urological Association, New York Hilton Hotel, New York

T M A

THE VIEWING BOX

AMA Clinical Meeting Delegates Vote to Seek Medicare Changes

Issues related to the Medicare program—certification of patients, utilization review, and reimbursement of charges for professional services on the basis of a valid statement rather than a receipted bill—commanded the attention of the Texas Delegation at sessions of the American Medical Association House of Delegates during the 1966 Clinical Convention at Las Vegas on Nov. 28-30.

Attention also was devoted to the new Title XIX program, which provides federal financial assistance to the states for health care for those who qualify for categorical aid as well as for the medically needy.

Texas delegates shared the general concern of the medical profession about the Medicare requirement to certify and to recertify the medical necessity for the admission or continuing hospitalization of a pa-

tient, pointing out that it places an unnecessary burden upon the physician. Testimony presented emphasized that the present requirements for certification and recertification do not contribute to the quality of medical care. It was urged that an admission record or an adequate progress note be accepted to satisfy the legal requirements.

After evaluating testimony, the House of Delegates determined that the AMA should endeavor to bring about the repeal of those provisions of Public Law 89-97 (the Social Security Amendments of 1965) which require physician certification of medical necessity for hospitalization. The AMA will be available to counsel with fiscal intermediaries and the American Hospital Association in the development of amendments to the law which will be professionally acceptable and administratively workable.

In another action the AMA House of Delegates urged state medical societies to seek

the passage of state legislation which would provide a physician who serves on a utilization review committee with immunity from litigation arising from acts of the committee. A number of state legislatures already have granted this protection to physicians.

Under Public Law 89-97, utilization review committees are not empowered to discharge patients from hospitals. The discharge continues to be the decision of the physician responsible for the patient's care, with the utilization review committee determining only the continued fiscal responsibility of the federal government. Although it was pointed out that exposure to vexatious litigation may be slight, the AMA urged state societies to seek legislation to provide the committee member with desired immunity.

The AMA House of Delegates also devoted attention to a desired change in the Medicare law to permit the reimbursement of charges for professional services to be rendered on the basis of a valid statement by the physician to the patient, rather than a receipted bill. The present language of the law stipulates that payment for physicians' charges will be made by the fiscal intermediary on the basis of a receipted bill, or on the basis of the assignment of benefits by the patient to the physician.

The AMA has been urged to seek remedial action to amend Public Law 89-97, establishing that an agreement for payment between the patient and physician constitutes valid evidence of service rendered.

The AMA House of Delegates also devoted considerable attention to the new Title XIX program for medical assistance programs to the blind, the permanently and totally disabled, dependent families with children, the aged, and the medically needy. Many states already have implemented Title XIX programs, while the Texas Legislature will consider it when it convenes in January.

At the Las Vegas meeting, it was pointed out that free choice of physician is not guaranteed in Title XIX, Public Law 89-97, even though this is a provision insuring it for beneficiaries under Title XVIII (Medicare).

Physicians stated that the AMA should support the historical principle of the pa-

tient's right to a free choice of physician. They also pointed out that a patient should have a freedom of choice of a medical facility and should not be required to receive care at a facility not of his choosing. After hearing testimony on this subject, the House of Delegates requested the AMA to make a major effort to amend Title XIX of Public Law 89-97 to include these principles in the law.

The AMA House of Delegates also took a firm position in support of an amendment to the Social Security Act permitting the direct billing of patients under Title XIX by providers of services.

The Department of Health, Education, and Welfare has interpreted the present legislation governing Title XIX programs to be on a "vendor payment" basis. Federal reimbursement presently is not available for payments made by patients to physicians. This is in contrast to Title XVIII (Medicare) in which the physician has the option of billing the patient directly or taking an assignment of benefits from the patient.

At hearings on this subject, it was pointed out that a stated aim of Title XIX legislation was to eliminate the "second class" status of the needy. By not permitting reimbursement for direct payment, Title XIX is, in effect, denying beneficiaries the provision of care on the same basis which is available to those who do not need help.

Culminating these discussions, the AMA House of Delegates went on record in support of an amendment to Public Law 89-97, Title XIX, which would permit payments without assignments for medical care rendered to the patient by the provider of services. If the amendment is enacted by the 90th Congress, physicians would have the option of billing the patient directly or accepting an assignment. (*From JAMA 62: 121, 1966*)

Overheard in the Staff Room \$70

1st MD: Are you planning to resign from the AMA?

2nd MD: No. Why do you ask?

1st MD: I'm thinking of getting out.

With dues going up to \$70, I don't think the AMA is worth it.

2nd MD: You're getting a copy of *JAMA* every week, and a specialty journal every month. Don't you think they're worth something?

1st MD: Yes, but not worth \$70.

2nd MD: The time, effort and money that the AMA used in proposing Eldercare for Medicare cost plenty. Didn't you approve of the AMA stand?

1st MD: Sure, but they didn't put it over. Complete socialization of medicine is ahead of us and there's nothing the AMA can do to stop it.

2nd MD: Did you do anything to help the AMA? Did you write to your Congressman and Senators and ask your patients to do the same?

1st MD: I'm too busy to get mixed up in politics.

2nd MD: Have you ever attended an AMA convention?

1st MD: No.

2nd MD: You've been passing up the greatest postgraduate education course in the world. This is where one is brought up to date—papers and discussions on all subjects by experts in their respective fields, scientific exhibits, commercial exhibits that are eye openers to those who have never attended. You don't know what you're missing. And it's all for free to AMA members.

1st MD: Well, maybe I've been short changing myself, but no one ever encouraged me to go.

2nd MD: The meetings are advertised in *JAMA* and other medical publications. Do you know that the meetings of the House of Delegates are open to all MDs? Let me tell you something else that should interest you as a member of the staff of this hospital.

You've been griping about lack of representation of the staff on the governing board. Well, at this Chicago meeting, the delegates voted as policy of the AMA that hospital governing boards be urged to include physicians in their membership. How do you like that?

1st MD: Yes, that's all right.

2nd MD: And here's something else. The delegates took action to protect medical staff positions. They want the AMA's representatives to the Joint Commission to urge that body to have hospitals adopt this specific policy. They want hospitals, before terminating or renewing a staff appointment to give the MD concerned the right to have a hearing. And note this, a hearing before a committee of the hospital other than the committee that recommended termination or renewal of such appointment.

1st MD: Boy, I like that.

2nd MD: Do you know of the national meetings put on by the AMA on medical-legal problems, mental health, occupational health, public relations, quackery, disaster medical care, and others I can't recall at the moment. You must know what the AMA has done to raise the standard of medical education and practice. Of course, you are familiar with its code on medical ethics. But do you know that it supplies MDs with information on new drugs, foods and nutrition, cosmetics and office management? Besides, it has a physician placement service and gives financial assistance to medical students. Have you noticed the lists of postgraduate courses printed in *JAMA*?

1st MD: You've said enough. I'm afraid I haven't appreciated all that the AMA does for us. Maybe \$70 isn't too much after all. (*From the Massachusetts Physician Dec. 1966.*)



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T M A

WOMAN'S AUXILIARY

(Third in a series of four articles for the Tennessee Medical Association Journal on the Medical Auxiliary's involvement with Outlook Nashville, Inc. in social rehabilitation of handicapped persons.)

In the total rehabilitation of handicapped persons there are needs which can only be met by an informed, accepting community. Can non-professional members of a community be recruited and trained to be members of a comprehensive rehabilitation team which is concerned with the total person and his family?

Outlook Nashville, Inc. thinks so, and the Davidson County Medical Auxiliary is joining forces with this new organization to explore ways neighbors and friends might assist with social and emotional development and adjustment, when medical problems in a family interfere with the usual life processes and community relationships.

In November 1964, the Department of Health, Education and Welfare awarded Outlook Nashville a 3-year Community Health Services grant totaling \$92,000, to develop its LOOKOUT Council and demonstrate the value of training non-professional "LOOKOUTS" to work with handicapped persons in the community setting.

Who are these non-professionals? How can they be recruited and trained? And what types of services can they offer? Outlook Nashville is only beginning to find answers to these questions.


It is finding that families with a handicapped member need the same sort of community an average family needs—neighbors who feel free to drop in for a cup of coffee and a little grown up conversation while their children learn their first lessons in social interaction in the sandpile. These are the "non-professionals" handicapped families need, and Outlook Nashville recruits, to assist with total rehabilitation.

The LOOKOUTS come in all ages and with varied interests and abilities. Trainees screen themselves, the first requirement being to have enough interest to give up 10 hours for an intensive training course in which they are introduced to the extent and nature of handicapping conditions. Under the direction of Miss Jacquelyn Page, LOOKOUT Council Coordinator of Training, instructors (professional, parents and handicapped individuals) help trainees see differences in perspective and get to know the person who is handicapped.

Self-screening continues as LOOKOUTS are offered opportunities to work with handicapped persons in protected group settings. All activities maintain a 1:1 ratio of handicapped and LOOKOUTS and these are supervised by adult counselors under the guidance of a LOOKOUT Council Family Consultant. LOOKOUTS choose activities in which they feel capable or have a special interest. This may be in arts and crafts, creative speech, drama or dance. It may be in swimming, recreation, camping or office work. LOOKOUTS may volunteer to be pals to handicapped persons in their neighborhood and relieve tired parents as they bring outside stimulation into the home. The more mature, responsible LOOKOUTS often obtain paid "sitting" or tutoring jobs, and may be trained to assist with simple, time consuming exercises for persons receiving therapy.

LOOKOUTS encourage homebound handicapped persons to broaden their interests by phoning before and after watching Educational TV and discussing the programs.

Families and friends are included in LOOKOUT activities and friendships are followed up at the corner grocery store. There is evidence that one accepting LOOKOUT can influence a community's attitude by helping others understand the importance of little things—the warmth of a friendly "Hi!"—the hurt of the overt or implied "What's the matter with YOU?" so frequently encountered by one who is "different." LOOKOUTS can be effective members of the comprehensive rehabilitation team.



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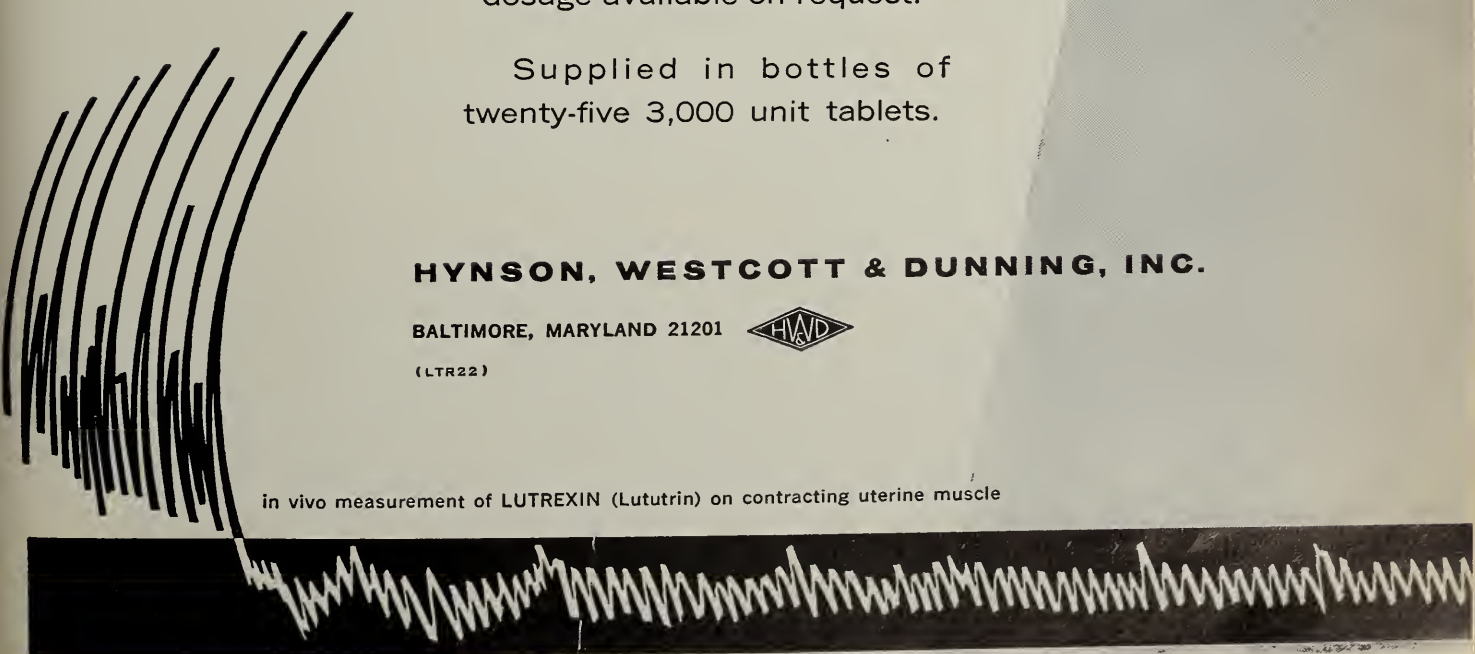
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Address All Correspondence:

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Published Monthly

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MARCH, 1967

NO. 3

Following the lead of the AMA Congresses on Mental Illness and Disease, The Tennessee Medical Association has had its own two successful State Congresses—in 1963 and again in 1966. The following papers from among the many items on the program point up some of the problems facing local communities and the State. As in all things medical, the physicians of Tennessee must assume responsible leadership in the management of the ills of individuals and society, as outlined in editorial comment introducing this Second Congress. (*J. Tenn. M.A., Sept. 1966*)

Mental Health — A Responsibility of the Entire Medical Profession*

CHARLES L. HUDSON, M.D., President, American Medical Association, Cleveland, Ohio

It is quite generally agreed that mental illness is our Nation's most pressing and complex health problem. This is true not only because of the large number of persons who are, or who may become, patients requiring psychiatric treatment; it also is true because of the great number of other people who can be affected or involved by an individual's mental or emotional problems. It has been pointed out, for example, that anxiety itself can be contagious—creating a kind of chain-reaction effect within a family or group.

As you all know, tremendous strides have already been made in improving the care and treatment of the emotionally disturbed, but a great deal of work remains to be done. The mental health field is vast, including a network of factors involving the life of the individual, the community and the Nation. Any programs designed to combat mental illness and promote better mental health must, by the very nature of the problems to be solved, be both ambitious and comprehensive.

At the same time, we also have to be realistic. With our rapidly growing population, we have to face the fact that it may take many decades before we are producing enough specially trained personnel to provide intensive, individual treatment for all who might need it. Possibly, on a statistical basis, we may never achieve the ideal number of psychiatrists, psychoanalysts, qual-

ified psychologists, and auxiliary personnel.

Realizing these facts of life, the American Medical Association recognizes and emphasizes the important stake which every physician, regardless of his type of practice, has in improving our mental health knowledge and resources. The physician participates in the mental health field on two levels—as a man of science and as a citizen.

The physician has much to *gain* from a knowledge of modern psychiatric principles and techniques, and he also has much to *contribute* to the prevention, handling and management of mental and emotional disturbances. Furthermore, if he carries out his responsibilities as a community leader and a participant in civic affairs, he is in an excellent position to help promote and guide effective mental health programs.

The AMA, of course, has always stressed the importance of the physician-patient relationship in the practice of medicine. Now modern psychiatry has made significant contributions in bringing about a deeper understanding of this concept and its importance in treating illness. We believe that up-to-date knowledge of interpersonal relationships and psychiatric techniques should be integrated into all phases of the physician's educational development—from the pre-medical years all the way through the long, never-ending period of postgraduate, continuing medical education.

With these and other basic principles in mind, the AMA—through its Council on Mental Health—has been developing a realistic, positive program to bring all physi-

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cians into the nation's mental health efforts. This program places special emphasis on how the AMA, nationally and through the state and county medical societies, can make significant contributions in this field. It also calls for continuing effort to improve liaison and cooperation with such organizations as the American Psychiatric Association, the American Academy of General Practice, and all other groups with an active interest in mental health.

One of the initial barriers which all of us must help overcome is a matter of certain basic attitudes which exist both inside and outside of the medical profession. It has become increasingly clear that we have a lot of educational work to do in examining, clarifying and correcting some pre-existing notions and prejudices.

Many physicians do not see any connection between mental health education and an ultimate reduction in mental illness.

The medical profession as a whole has not considered psychiatric illness with the same interest and attention given to other illnesses.

Many physicians fear that collaborating with lay organizations in developing mental health programs may lead to undesirable changes in the practice of other areas of medicine.

There are differences of opinion, both in and outside of the medical profession, on how to finance mental health programs—whether local, state or federal funds should be used and in what proportion.

If, when and where such difficulties exist, none of them is insurmountable. All of them can be overcome through effective exchange of information and viewpoints.

At any rate, whether we are general practitioners, internists, surgeons, psychiatrists or what have you, the time has come to realize that we are all *physicians*. We have in common the same basic medical education, the same M.D. degree, and pretty much the same experience of internship. Despite the different paths we may have travelled after our intern training period, we also share a common goal.

We exist and function, regardless of our type of practice, for the purpose of alleviating human suffering, curing illness and improving health. The need for our services

can arise from physical causes, psychological disturbances, or frequently a combination of the two. So, it is essential that psychiatrists and other physicians strive for empathy and respect, in order that we may develop education programs which will meet the needs of all concerned—especially the American public.

Certain key questions have yet to be answered, fully and definitely. For example:

How to recruit family physicians into programs of continuing education in psychiatry.

How to construct practical courses in psychiatry which, on a sound basis but in a minimum amount of time, will meet the needs of doctors who are not specialists in the field.

How to enlist the necessary teachers from among the Nation's psychiatrists and other qualified experts in the field of mental health.

How to divide the teaching load between the medical colleges, community hospitals, and national, state and local professional organizations.

I can assure you that such questions will be a continuing concern of the American Medical Association and all other interested parties.

From the examples I have cited briefly we can see a growing awareness and interest in the field of mental health. Now, one of our major tasks is to clarify, simplify and streamline existing knowledge and techniques. Within the limits of sound medical practice, we must make these tools available to all qualified members of the health professions who can be mobilized into a team effort against mental illness.

This is more than ever necessary because one of the major trends today is to minimize and de-emphasize, as far as possible, the large institutional setting. We are moving toward what might be called a decentralization of treatment for mental and emotional disturbances.

Those responsible for the treatment of the mentally ill have become increasingly aware that more effective help can be provided to patients in their home communi-

ties—through earlier diagnosis and a variety of treatments and therapies suited to each patient's needs.

When this care is provided in a familiar home setting, experience has shown that fewer patients require 24-hour hospital treatment, the time of treatment is shorter, and the tragic disruption of personal and family life is lessened.

Therefore, the future will bring a shift of emphasis from large mental hospitals to physicians' offices, outpatient clinics and community health centers. The task of establishing facilities, mobilizing resources and enlisting personnel will be a long, continuing one.

The American Medical Association will be working hard to foster a general attitude, within the profession and among the lay public, which will help the nation toward constructive solutions of the many problems that will confront us.

In relation to this over-all effort—and because one of our serious problems in recent years has been a need for more psychiatrists and auxiliary personnel in the field of mental health—I should like to point out an important action taken recently by the AMA House of Delegates.

A new committee of the American Medical Association is seeking ways to alleviate what the Board of Trustees has termed "the drastic shortage of health manpower that is confronting the American people."

Incidentally, Dr. Alvin J. Ingram of Memphis is a member of the committee. The Committee's objectives are to:

—Review the overall national situation pertaining to health manpower to determine immediate needs.

—Attempt to determine more effective and efficient ways to utilize existing health manpower while seeking ways to develop

the necessary additional manpower needed in the medical profession and allied health professions.

To accomplish these goals, the committee will seek the assistance and cooperation of all organizations and agencies concerned with any phase of health manpower.

The seven-man committee, which held its first meeting last month, was established by the Board of Trustees and endorsed by the House of Delegates at the 1966 Annual Convention to coordinate all AMA activities pertaining to health manpower, and to act as a liaison group with other national organizations and agencies working in similar areas.

The Committee's immediate goals will be to examine the function and structure of the health team in various settings (urban, rural, etc.) and then attempt to determine the best, most efficient ways it can be organized to deliver total health care.

Furthermore, with particular regard to mental health, there will be special stresses and strains because of legislation enacted in the past three or four years dealing specifically with mental retardation, community mental health centers and various other aspects of psychiatric services. In fact, one of our big tasks is to study and understand these various new laws so that we can try to bring about some coordination in what now is more or less of a "crazy quilt" design. The key word, I think, is "leadership." We in the medical profession, more than ever before—nationally, in the states and in our own communities—must provide constructive, imaginative leadership in developing programs which will forestall unnecessary, undesirable government interference. And this applies in the field of mental health just as much as in all other aspects of medical practice.

Organizing Community Resources for Mental Health*

DANA L. FARNSWORTH, M.D.,† Boston, Mass.

Several years ago I heard one of our most capable and respected psychologists, acutely concerned about the issues you will be discussing in this Congress, say that for those who are seriously interested in the problems of mental illness and health the days of high adventure are not yet over. I hope that all of you attending this Congress share that same sentiment. We are engaged in trying to find the solution to one of the most complex problems facing man. Robert Frost described it as that of learning how to crowd and still be kind; Arnold Toynbee said that it is necessary for us to persuade the heart to do what the head knows must be done if we are to avoid destroying ourselves through overpopulation and nuclear war.

The concept of mental health is thought to be very recent, but it is not. The first book on the subject was written by a professor of medicine at the University of Vermont and published in 1843.¹ In Austin Flint's *Practice of Medicine*, first published in 1866, he said that management of mental disorders constituted one of the specialties of medical practice but that "all physicians are called upon, more or less, to treat affections of the mind falling short of well-marked confirmed insanity."² After observing that a vast amount of unhappiness is due to causes which, under intelligent medical direction, may be removed, he said, "Insanity is to be prevented by the general practitioner. Those who devote themselves to the treatment of insane patients have not the opportunity of preventing the development of insanity." In this same volume Flint, in discussing "nervous asthenia," said that that topic properly belongs to mental hygiene, a subject of vast importance in its pathological, social, and moral bearings.³

Psychiatry is a very young discipline as

medical specialties go. The first hospital devoted to the care of the mentally ill in this country was established in Philadelphia in 1752. The first textbook of psychiatry was published in 1812. The American Psychiatric Association was organized in 1844 (first as the Association of Medical Superintendents of American Institutions for the Insane). Freud's revolutionary approach to mental disorder is only about 70 years old. Clifford Beers,⁴ who published his famous autobiography, *A Mind That Found Itself*, following a serious mental illness, was instrumental in founding the National Committee for Mental Hygiene in 1909. From this organization the National Association for Mental Health has evolved.

Since 1952, the American Medical Association through its Committee on Mental Health (elevated to a Council in 1955) has shown an active interest in mental health, sponsoring the series of national conferences and congresses, which stimulated this and similar state congresses. In 1956, the Joint Commission on Mental Illness and Health was established; much of the impetus was provided by Kenneth Appel, President of the American Psychiatric Association in 1953-54.

The late President Kennedy demonstrated his interest in mental illness and mental retardation in his message to Congress of February 5, 1963, in which he recommended the development of community mental health centers and facilities for the mentally retarded. He was instrumental in ushering in a new era of intensive efforts in community psychiatry.

The essence of community psychiatry has been well expressed by Smith and Hobbs:⁵ "to move the care and treatment of the mentally ill back into the community so as to avoid the needless disruption of normal patterns of living, and the estrangement from these patterns, that often come from distant and prolonged hospitalization; to make the full range of help that the community has to offer readily available to the per-

† Director, University Health Services, Harvard University, Boston, Mass.

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son in trouble; to increase the likelihood that trouble can be spotted and help provided early when it can do the most good; and to strengthen the resources of the community for the prevention of mental disorder."

The fundamental principle of community mental health centers is that they be available to all who need them as soon as possible after the need has become apparent and as near as possible to the homes of those who need them. Another basic goal is to insure availability of such services to those who could not afford them on a fee-for-service basis. It is equally important that there be no discrimination against those who are able to pay for all or a substantial part of the cost of the services they need. In many communities the health centers will be the only source of help for emotional disorders because private psychiatric care is inadequate or not available. In all areas served by these centers the views of residents about insuring adequate financial support should be considered, but no one should be deprived of service either because he has money or because he has none.

Several years ago Lindemann introduced the phrase "caretaking professions" to describe those groups whose main duties consist of aiding people who have some special need—learning, (teachers), health care (physicians and other health professionals), work and money (business managers), regulating interpersonal relations (lawyers and judges), spiritual development (ministers and priests) and, above all, nurture and affection (parents). A network of collaborative relationships between the mental health professionals (psychiatrists, psychologists, social workers, psychiatric nurses, etc.) and the other caretaking groups (and cooperative utilization of knowledge from each field) is a central goal for all of us who wish to see community resources organized and used effectively to improve mental health. The total of human misery is much too great to be significantly affected only by those who specialize in treating persons who have become ill from contending with overwhelming stresses. Freud once described the achievements of psychotherapy as being limited to converting neurotic suffering to ordinary human misery. While this may

sound like a gloomy assessment, what it indicates is that psychiatrists are not omnipotent and that mental illness does not occur in a vacuum, even if it could be "cured," there are many other aspects of the human condition which require our attention if individual and social life is to be productive and constructive—in other words, if we are to extend our concept of mental health beyond that of lack of gross psychopathology.

If we are successful in this Congress, and in the programs in all the other States of the Union, our specific functions as mental health specialists will be less necessary and we can focus more on our roles as teachers, parents, physicians, judges, clergymen, etc. We should work toward the ideal of being able to think and work primarily in terms of growth and development. But we must continue to concentrate on dealing with the casualties of society, even as we work to improve the society itself. If we work as hard as we can to improve the lot of the mentally ill; the more theoretical or esoteric aspects of mental health promotion will follow naturally.

Formerly, psychiatrists were supposed to focus on the one-to-one treatment of those persons who had become ill enough to show serious signs of psychopathology; now they are addressing themselves to, or being invited to become involved in a wide variety of personal and social problems heretofore not considered to be in their province. Among these are the human problems resulting from displacement due to urban renewal programs, the psychologic consequences of poverty, our penal system, and the apparent increase in crimes of violence and loss of impulse control. Psychiatrists are collaborating with lawyers, members of the clergy, educators, and parents, businessmen, and with their own colleagues in medicine who are not psychiatrists to achieve social progress.

Vaughan⁶ recently emphasized that physicians are in a good position to interpret to the community the fundamental processes and concerns which determine both the social interaction of the individual and the behavior of groups of individuals, and to exert leadership in making use of what we already know in those areas. He stressed the desirability of learning more about the sig-

nificance of imprinting, the process by which a very young organism identifies another living object as its parent or source of refuge and protection. In birds the capacity for imprinting varies from a few hours to several days after hatching. For higher animals socialization must occur early in life or it may never be accomplished. Man must learn social and sexual roles and, as Spitz's work has shown, there is a critical period of primary socialization.⁷

We should have greater awareness of what happens to children who are brought up in homes or institutions with inadequate affection, both physical and emotional, and who are understimulated.

Vaughn also calls our attention to the need to know more about the tendency of groups of animals (or people) to organize themselves into territories in which they can establish and maintain a comfortable social order. This process is evident in families, communities, ethnic groups, and nations, just as it is among groups of animals.

It is becoming evident that the human beings who are socially deprived (whether because of cultural lacks or prolonged confinement to institutions) or socially disorganized, cannot work effectively in an adult society.

The mentally retarded, long disgracefully neglected, have recently received nationwide attention, but unless we keep their plight constantly in mind we can all too easily slip back into disregard. Formerly, mental retardation was seen as being largely a result of brain damage, hence incurable. Now we are beginning to realize that the brain-damaged child can be helped and also that many forms of retardation result from cultural and social deprivation and are therefore preventable. Even children with crippling emotional conflict may appear mentally retarded until removal of the causes of their distress permits them to use their energies effectively.

Many persons are now moving to crowded urban areas, where habits attained elsewhere may not be entirely desirable. Similarly, children who have known only crowded cities may have difficulties adapting to other places. Many urban children are so deprived of privacy that they have little opportunity to exercise their propensi-

ties for fantasy and to develop richness of imagination, and are exposed too early and too often to adult behavior which may be traumatic to their own development.

We are now observing the development of an adolescent culture which is veering away from the tradition-orientated, parent-child-centered social structure to one less rooted in the past and more responsive to influences and pressures arising in contemporary life. Peer-group pressures are increasing at the expense of home influences as the strength and prestige of the family diminishes. Furthermore, such pressures are not exerted by single individuals, or by small groups here and there, but in full force by the concerted efforts of the mass media, entertainment industry, and fashion and advertising agencies.

A justifiable criticism often directed toward mental health workers is that they relatively neglect that element in our society that needs help most and could most quickly benefit from it—the children. There are few child psychiatry clinics in the Nation and they are unevenly distributed. A Joint Commission on the Mental Health of Children, similar in its organization and goals to the original Joint Commission on Mental Illness and Health, has now been organized and funds for its work appropriated by the Congress of the United States. Various task forces are now going about their assignments, and by late 1968 we will have guidelines for our efforts on behalf of children, which should add greatly to our effectiveness.

The opponents of psychiatry have become more vocal and active than ever before. Some of these critics deny that there is any such thing as mental illness, that it is a myth. According to this view, people always have some choice as to how they act, hence are always responsible for their conduct. Psychiatrists are portrayed as eager to deprive of their freedom persons whose behavior they disapprove by confining them to mental hospitals, usually in connivance with relatives who want to get rid of them.

But the alternative method of dealing with those patients whose behavior cannot be tolerated in a relatively open society would be to resort to the legal processes of

accusation, trial, and punishment, a regressive move indeed.

Other critics insist that there is no evidence that psychotherapy is of any value, that untreated patients do just as well as those treated. Some attack psychiatrists as moral engineers, seeking to impose systems of ethics under the guise of science. All these criticisms must be met patiently; those which are justified should be accepted and acted upon, and the unjust ones left to speak for the motives of those who make them. If we react with excessive hostility, the unfair accusations may gain even greater credence. Going about our tasks competently and confidently constitutes the best answer we can give.

I suggest that the medical model for the treatment of disease is not entirely appropriate when applied to the management of the emotionally disturbed and mentally ill. We in psychiatry are often somewhat uncertain about the best methods of helping patients who are inhibited or immobilized by emotional disorders. A supplement to the medical model is necessary.

Instead of thinking of our mental hospitals solely as places to send patients for treatment and which provide protection both for patients and others in the community, I believe we might profitably think of them primarily as educational institutions, concerned with aspects of living which no other of our agencies or institutions has had the resources or courage to undertake.

If we consider the mental hospital a teaching and learning center, who are the teachers and who are the students? The answer is that practically every person connected with a hospital should be both a teacher and a student, however much the proportions may vary.

Physicians, both psychiatrists and others, may learn about the effects of long-continued emotional stress. They organize and interpret this information and pass it on to all members of the auxiliary mental health professions and to the nonprofessional attendants. They teach patients and their relatives each time the opportunity is offered, how and why symptoms developed, why relations with their fellows have become impaired, and even how good relations might be developed where they never be-

fore existed. Rehabilitation begins as soon as a patient enters a hospital, hence everyone must cooperate in helping patients retain the social skills they possess and aid them in regaining those they may have lost. Like the proverbial rider who is strongly urged to resume riding immediately after a fall so that his fear may not harden into incapacity to ride again, a mental patient is helped to do as much as he can under conditions that approach his normal or optimal mode of behavior.

In the mental hospital, students of medicine, psychiatry, social work, psychology, anthropology, sociology, genetics, the natural sciences, and various other disciplines learn much about society outside the hospital while working with the patients who are temporarily in need of sequestration. They learn why some people recover quickly while others may never regain the ability to live in an open society.

Patients in an educationally oriented hospital learn about themselves and the ways in which their adaptational efforts have been inadequate. They learn improved methods of reality testing. They can do all these things more effectively because they are surrounded by people who know about their problems, who care for them as individuals, and are conditioned to learn from experience.

This concept of the mental hospital as a special type of educational institution is hopelessly idealistic and unworkable unless all of us who are not in mental hospitals change our attitudes toward those who must be institutionalized. As the report of the Joint Commission on Mental Illness and Health brought out so clearly, we tend to react quite differently toward a person who suffers from a heart attack, a "stroke," or rheumatoid arthritis than we do toward a patient with a psychosis or crippling neurosis. The former excites our sympathy, compassion, and desire to demonstrate our feelings of friendliness and understanding; the latter stimulates feelings of fear and even hostility. We do not know how to express comfortably our compassion for the mentally ill even when it is aroused. At the personal level we tend, all too often, to "write off" the ill person, and avoid too much contact with him. At the community

or legislative level we assume that we have done our duty when we furnish the necessary buildings to house clinics or patients. Thus we avoid coming to grips with the real issue, namely, furnishing the skilled people who can develop the type of environment in which recovery is possible.

Community health centers reflect a growing recognition of individual mental health as a factor in the health of society as a whole. They acknowledge the necessity for abandoning the old isolationism (with its implications of shame, danger, and hopelessness) and devoting efforts to each patient's specific needs in terms of time of treatment, schedule, method of therapy, amount, etc. We have passed from the era of despair to one of responsibility—and thus have com-

mitted ourselves to continuous dissatisfaction with the status quo.

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The Use of Drugs in the Management of Drug Dependence*

NATHAN B. EDDY, M.D.,† Washington, D.C.

Dr. Efron has asked me to speak about the methadone and cyclazocine programs, to describe them and appraise their significance. The description should be factual but obviously the appraisal must be my own. These are our newest research efforts toward practical accomplishment in the drug abuse problem and even the basic concepts are too controversial for there to be as yet any consensus.

But first let me make a general statement that we may be properly oriented. The World Health Organization's Expert Committee¹ and the National Research Council's Committee on Problems of Drug Dependence have recommended the substitution of the term, drug dependence of this or that type, for the terms, drug addiction and drug habituation. The latter have been defined and redefined so often and misapplied so frequently that there is difficulty in knowing what anyone means when these terms are used. The common feature of drug abuse is dependence of the person on the drug abused, so, if we speak of drug dependence and identify the agent involved, in the present instance we are concerned with drug dependence of morphine type, it should be clear what we are talking about. Abuse, by the way, is excessive and persistent use beyond medical need.

The addict then is a drug dependent person, seeking escape or relief from his personal inadequacies, frustrations and daily problems in the use of drugs of one type or another, frequently turning from one to another, partly according to availability, sometimes to counteract the effect of one drug by another, and usually resorting to antisocial behavior to obtain any one of them.

Logically treatment should be directed to the personality disorder, the person's prob-

lems and motivations, but we haven't been very successful in this. In fact only in recent years have we given much serious attention to this approach. The patient is already taking a drug or drugs and generally has little or no motivation to stop, making it a very attractive proposition to manage his drug taking so that he can abandon his drug seeking and antisocial activities, hopefully, with consequent social rehabilitation. This is the basis of the methadone program.

The Methadone Program

Methadone is a morphine-like agent, capable of producing essentially the same effects as morphine itself, including dependence and tolerance with only some quantitative and time-effect differences. It is classified legally as a narcotic and is under full narcotics control. We protest reference to it as an antinarcotic.

The differences in the effect of methadone of interest to us here are that it does not produce for the user the same orgasmic thrill as does morphine, and that it is longer acting and particularly more effective and longer acting when taken by mouth. Tolerance to it can be acquired rapidly and to a high degree. The methadone tolerant person is equally tolerant to morphine, heroin, and other morphine-like agents, but not to barbiturates, stimulants, etc.

The objective of the methadone maintenance program is to attain, and stabilize the patient on such a level of tolerance that the individual daily dose has no appreciable acute effect and that the taking of heroin or another narcotic will be unrewarding. If the dosage is sufficient, the duration of action of the drug will cause this state to be maintained throughout the 24 hours from dose to dose. The actual dose required will depend at the outset on the amount of previous narcotic drug intake and eventually on the individual response to methadone. When the proper level is reached and maintained the person is for the most part tranquil, free of anxiety and of the drive to find

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† Executive Secretary, Committee on Problems of Drug Dependence, National Research Council, Washington, D. C.

his next "Fix," without overt sedation or disturbance of mental or motor functions. Freed of his drug-seeking drive, he is ready to consider and develop his productive potentials, mental and physical.

Dr. Dole reports that 274 patients have been admitted to the study in the nearly three years that it has been underway. Twenty-five were dropped (3 voluntarily and 22 discharged for behavioral reasons; psychopathic behavior, violence, intractable alcoholism, or use of barbiturates) and 249 remain on the program. Of those discharged 15 have repeatedly sought readmission. Heroin users had been accepted for the program in the order in which they applied, subject to their being volunteers, "Mainline" heroin users for 4 years or more with a history of repeated relapses after withdrawals, not psychotic, aged 20 to 39 years, and having no major dependence on barbiturates or alcohol. A few, it was found after admission, did not meet these criteria and are among those dropped. Until last year only males were admitted; 17 females are now on the program. Only 2 had never been hospitalized and only 6 had never been arrested.

The management of the patients begins with a 6 week period of hospitalization. Each patient receives a thorough medical work-up with remedial measures scheduled as indicated; most need dental care. Methadone administration is begun in small doses; not more than 5 or 10 mg. twice a day. It is always given orally in 3 or 4 ounces of fluid. The dose is increased very gradually to the tolerance level, 80 to 120 mg. per day, which will block the effects of heroin, and there is a gradual shift to a single morning dose. One wants at the most only initial mild sedation with essentially no symptoms during tolerance induction except perhaps constipation and some urinary difficulty to which tolerance also develops. The patients are from the beginning on an open ward, free to leave for a job, a visit to family, shopping or school. The drug is taken under the direct supervision of program personnel and the urine is monitored daily for drug excretion, not only narcotics but barbiturates, amphetamines, etc.

The second phase of management begins when tolerance is fully established, the pa-

tient leaves the hospital and returns daily for his drug, staff contact and urinalysis. Phase three is reached when the patient is living a responsible life, self-supporting in a steady job or in school with a good record and requiring little or no social help. For 107 patients on the program for 3 months or more as of 15 March, 1966, Dr. Dole has reported 58% in a steady job, 9% in school and 4% in school and working; 61% are fully and 11% partially self-supporting. At the present time about half of the patients in phase three of management are allowed to come in only twice a week, one only once a week, for monitoring. They take their dose of that day and receive medication to be taken at home on the intervening days. Dr. Dole believes that the following points have been established. For some we can agree; concerning others I shall comment:

(1.) The medical safety of methadone given for periods of up to two years, daily in large doses to which the patient is tolerant. This has been confirmed by repeated examinations of general health and nutrition, of liver, kidney and bone marrow function, and of neuromotor performance.

(2.) Efficiency of the blockade of narcotic effects. When tolerance has been properly established, the daily dose of methadone has no appreciable acute effect and an intravenous dose of heroin even up to 40 or 80 mg. or a large dose of another opiate has no subjective effect. The first was tested by giving a patient dextromethadone, an inactive agent with respect to morphine-like subjective effects, in place of the regular dose of methadone. The patient was unaware of any difference. Seven patients have been challenged from time to time on a double-blind basis with increasing doses of morphine, heroin, or dihydromorphine (Dilaudid). No significant euphoric effect was detected.

(3.) The methadone stabilized patients have a normal sensitivity to pain and, needing treatment, have experienced the usual symptoms, and have responded uneventfully to surgery and to routine pre- and postoperative medication. The last is believable only with respect to nonopiate agents. If the patients are tolerant as reported they are certainly tolerant to morphine-like analgesics.

(4.) The stability of dose has been established. The patients have accepted the constant amount of medication without demand for increase over periods of many months. In this respect methadone is quite different from morphine and other shorter-acting similar drugs. These agents given once a day or even several times a day, fail to hold patients in a sufficiently stable pharmacologic state; cycles of narcosis and incipient abstinence occur, and a constant demand for larger amounts.

(5.) The acceptance of the treatment is surprisingly consistent. Despite the absence of euphoria and suppression of the patient's capacity to obtain euphoria from heroin, there has been only one voluntary drop-out. All drop-outs have applied repeatedly for readmission. Critics say this is not surprising. The patients are supplied constantly with free drug. Is their steady state a constant euphoria?" They do not look like it and they do not express their feelings that way.

(6.) The fear that some of the medication might be diverted to illicit channels has not materialized. No suggestion of improper use, Dr. Dole says, has come to his attention. This refers, of course, to the patients who report only twice a week. They must take one dose under direct supervision and absence of an acute effect indicates maintenance of tolerance. The manner of dispensing also discourages accumulation or diversion. The daily dose is in a large volume of fluid which will not keep for more than a week or so and which is not amenable to intravenous administration, the only mode of use of interest to the street addict. The statement about maintenance of tolerance is valid and there is no indication that the large dose of methadone in the 4 ounces of liquid can or has been successfully concentrated or extracted. Perhaps this is still a moot point.

(7.) The use or attempt to use other drugs while taking methadone is still at least arguable. Methadone tolerance, of course, does not block the effects of nonmorphine-like drugs. If these were taken previously in conjunction with the use of heroin, use of them may still be a problem. Some patients have used these drugs sporadically in the first few months on the pro-

gram, diminishing such use as they have become more fully occupied with work, school and family responsibility. Patients have also tried heroin occasionally. Dr. Wikler has suggested that for some patients an unrewarding experience with street heroin may be a necessary step in breaking the conditioned habit of heroin use. None of the patients have relapsed to regular use. The monitoring by urinalysis should detect even sporadic use of heroin and positive reports have been obtained. New York street heroin contains quinine and quinine persists and can be detected for a long time after it is taken.

(8.) Before entering the program all of the patients had been involved in illegal activities and most had spent a considerable time in jail. Only one of the patients in the past 2 years has been convicted on a narcotics charge, possession of heroin, during a period of experimentation on his part 6 weeks after his discharge from the hospital. He did not repeat and has been drug-free, except for his methadone, for more than a year. There have been a few convictions for non-narcotic offenses, disorderly conduct and misdemeanors, but the record compares favorably with a comparable group of persons, not drug dependent, of the same age and cultural distribution.

Ending of heroin use and of criminal activity are only first moves towards rehabilitation. Many of these patients have been found capable of assuming responsible places in society, doing productive work and supporting a family. Perhaps feeling a special need to prove themselves, they have established better than average records of attendance and diligence in their work. Some are not yet employed; perhaps some will never be employable. The minimal goal is that they live decently and all who remain in the program meet this minimal condition.

The decision as to whether or not methadone maintenance is to be continued into the third phase of substantial rehabilitation is, according to Dr. Dole, the responsibility of the physician in charge of the patient. He says that he has to date seen no indication for removal of the blockade of narcotic effects, since the patients are still in the process of rehabilitation and there has been no sign of intolerance to the medication.

The controversial points as I see it are these:

Are the patients really free of drug abuse? On the face of it the record is good, but not entirely clear.

What are the relative roles of the methadone tolerance and the intensive, one might say dedicated, effort of the personnel to make the program work? No psychotherapy, group or individual, as such has ever been employed. Dr. Dole admits that 2 years are too short a period for full evaluation and that there should be other trials with different selections of patients and different clinical staffs. This has been recommended from other sources and to a limited extent is being initiated.

Can or should the program be extended to employment by practicing physicians? I think the answer is "No." Physicians should not write prescriptions for methadone for self-administration in a maintenance program. It must be taken orally under the eyes of the physician, and doctors in general have not the time nor the experience for the close supervision and monitoring which the program requires. Even the handing out of a couple of doses in dilute solution for taking at home is questionable. The eventual applicability and value of the procedure, the ultimate degree of rehabilitation, and the attitude towards withdrawal at some future time require a lot more experience. This is still a research project.

The Cyclazocine Program

Cyclazocine and the cyclazocine program in principle are quite different from the situation with respect to methadone though the results have much in common. Cyclazocine is a powerful specific opiate antagonist and a drug with a high degree of analgesic potentiality. When it was tested at the Addiction Research Center, formerly drug dependent persons were in the main indifferent to the subjective effects of small doses such as would relieve pain, rarely recognized the effects as like those of an opiate and expressed no particular liking for the drug. Larger doses produced bizarre and disturbing, even alarming, psychotomimetic effects like those following nalorphine and some other antagonists. Given to a person dependent on a large stabilization dose

of morphine, cyclazocine will not substitute for the morphine, but precipitates a marked abstinence syndrome. The peculiar properties of cyclazocine, however, were demonstrated when it was administered chronically. If the patient was started on a very small dose orally, 0.2 mg. twice a day, increasing gradually to 2 mg. twice a day, tolerance to its sedative effect and to such other subjective effects as occurred developed rapidly and the patients became cross-tolerant to the unpleasant side effects of nalorphine. If morphine was administered after this tolerance had developed, the subject failed to experience the usual effects to be expected, and even if the morphine dose was increased to 120 mg. its pupillary and subjective effects were less than with 30 mg. in the same person in the nontolerant state. Furthermore, if morphine administration was superimposed upon daily administration of cyclazocine in persons stabilized on the latter and the doses increased during 10 days from 10 to 60 mg. 4 times a day, the subjects again failed to experience any particular euphoric effect of the morphine, and on its eventual withdrawal showed little evidence of physical dependence. In other words, although tolerance to the direct effect of cyclazocine occurred, the drug's ability to antagonize or suppress the euphorigenic and physical dependence producing properties of morphine remained. This prompted Dr. Martin² to suggest that stabilization on oral cyclazocine might act as a deterrent to the abuse of heroin or other opiates. As with methadone, with euphorigenic action blocked, in this instance by antagonism instead of cross-tolerance, drug seeking behavior and its anti-social accompaniments would cease. Drs. Jaffe and Freedman of New York have undertaken to test this suggestion and the following details are from Dr. Freedman's experience.

Upwards of 40 patients have been admitted to the study. They are all males similar to the type specified by the criteria for admission to the methadone program. Dr. Freedman has a 50-bed unit for the treatment of drug dependence and the cyclazocine patients are volunteers from among the admissions to this unit. The patients are maintained on a hospital ward and rapidly withdrawn, with the help of methadone, if

necessary, to minimize the abstinence phenomena. In about 10 days cyclazocine administration is started at a very small dose, 0.1 or 0.2 mg. orally twice a day. The dose is increased gradually as tolerance develops, eventually to 4 mg. as a single dose per day. After about a month of cyclazocine stabilization the patient is released to outpatient status and returns, according to Dr. Freedman, every other day to take one dose of cyclazocine under direct supervision and to receive another to be taken on the intervening day. The desired effect of cyclazocine hardly lasts more than 24 hours and attention is being given to the possibility of a depot preparation to prolong the action period. However, Dr. Freedman has experienced no difficulty through a patient failing to take the intervening dose or in the waning of the effect of one dose before the next is taken. A few patients have asked to be taken off the program.

After stabilization on cyclazocine the appearance and behavior of the patients are remarkably like what is seen in methadone maintenance. They are tranquil, free of anxiety and of the drive to find the next dose, without overt sedation or disturbance of mental or psychomotor functions. They have attained a similar degree of social rehabilitation with cessation of heroin abuse and of antisocial actions.

The patients on cyclazocine get no acute effect from a dose of heroin. They are being directly challenged openly by a 15 mg. intravenous dose of heroin from time to time. Dr. Freedman believes this to be a good educational procedure since not only the patient but others on the ward undergoing some other treatment modality are impressed by the obvious ineffectiveness of the heroin shot.

One needs to ask, and at the moment we

do not have completely satisfactory answers, the same sort of questions as for the methadone program. Cyclazocine does not block the effects of nonmorphine-like drugs, so do these patients resort to such drugs? How much rehabilitation can be attained? How long must cyclazocine be continued? Could cyclazocine be used in this way by the practicing physician? To the last, I think not. The patient must be withdrawn from his narcotic and continuously and very carefully monitored, both pretty surely beyond the facilities of the ordinary physician.

One other thought. Dr. Dole, as have many others, has emphasized the enormous economic toll of drug abuse. We do not know to what proportion of our drug abusing population methadone or cyclazocine management is applicable or how permanent is the apparent social rehabilitation, but these things are worth thinking about. We are still in the pilot research phase, but it may one day be desirable economically and otherwise to broaden these programs if we get satisfactory answers to the questions which have been raised. Let's keep our minds open to the possibilities.

The author gratefully acknowledges his indebtedness to Dr. Vincent P. Dole, The Rockefeller University, and Dr. Alfred M. Freedman, New York Medical College, for permission to quote their experience with methadone and cyclazocine.

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Summary Statement*

WILLIAM F. SHEELEY, M.D.,† Phoenix, Arizona

Let me remind you of the First Tennessee Congress, and call your attention to the spirit of change which permeates Tennessee since that First Congress and which has been demonstrated so forcefully during this present Congress.

Obviously, the mental health effort in Tennessee is expanding and intensifying. It is involving more professionals in the field, and nonprofessionals, than were apparent in the First Congress some three years ago. It is affecting more various aspects of Tennessee life than were apparent those few months ago when the First Congress was held in this very auditorium in this very city.

Organized medicine was involved then, but it is much more involved today. During this Congress, we have heard Dr. Hudson, representing the American Medical Association, describe how the AMA stresses mental health and calls on psychiatrists and other physicians to collaborate and to teach one another. We hear the AMA calling on physicians to lead the mental health effort and promising that the AMA will give direct assistance which even includes money.

We have heard that there is a Steering Committee, which was here three years ago, which has continued to act since then, and which is sponsored by the Tennessee Medical Association, but which has representation from the Tennessee Academy of General Practice; the Tennessee District Branch of the American Psychiatric Association and, indeed, from many other medical organizations in the state. The American Psychiatric Association, through its District Branch, calls upon psychiatrists to develop and extend the medical model and to become ever more involved in the network of communications among social and medical facilities.

The State of Tennessee is expanding its program, as your Governor told you. He

said that Tennessee has abandoned the custodial philosophy; that it is sharply increasing facilities and personnel, and that it is providing substantial sums of money. Shall we say, Tennessee is putting its money where its mouth is. Tennessee, as a state, is involving both the professionals and the non-professionals in pushing such programs as the community mental health centers.

These are some of the general statements made during this Congress. Let us now examine some more specific evidence of the involvement of this state in a broadened and intensified mental health program. Let us look at some of the small group discussions in which you have participated during the past two days.

As to mental health centers, we have heard some wringing of hands; some *mea culpa*; some "Why aren't we getting going?" We heard that some centers are slow getting off the ground; that they are irregularly effective and inequitably distributed. We have heard that existing clinics have not found their roles; that confusion and dispute has broken out as to who speaks for mental health within the community. We have heard that solid funding has not always been provided, so that some clinics creak along from day to day, from hand to mouth. We have heard that the state plan needs study and possible revision. We have heard that the public needs more education.

I do not know whether this agonizing causes great feelings of pessimism in you. In me, it causes great feelings of optimism. Let me say why I take this perverse position. If no one cared enough to agonize about anything as new and as obviously in need of very careful and continuing study and critical review as is this effort, then the situation would be sad indeed. We need worry and criticism so that things can be modified as we move along. Any new undertaking has a lot of "bugs" in it. I am delighted that you people are ready to recognize that "bugs" still exist, and that you are eager to get at them and stamp them out (I guess that follows the metaphor) to improve your program. This very soul searching

* Read at the Second Tennessee Congress on Mental Illness and Health, Oct. 13, 1966, Nashville, Tenn.

† Superintendent, Arizona State Hospital, Phoenix, Arizona.

and uncertainty bodes well for the future of your mental health center system in Tennessee.

We also heard about other problems. We heard about problems among school-age children. We heard that social influences could contribute to the emotional problems among them; such influences as overcrowded classes and poor pupil-teacher ratios, and urbanization, which has spawned large schools which may dehumanize our young people much as our large mental hospitals dehumanize our patients.

We talked about family instability and the working mother as stresses which the child must carry, and which also withdraw the support on which he depends to handle stress. We have talked about how children are mobile, even as their families are mobile. They start in one school system and then shift to, perhaps, two or three other systems. The new systems may not mesh with the old, so that the children find themselves zig-zagging in their scholastic development.

We heard it suggested that nonprofessionals may do the best job taking care of the poor. It was suggested that people from a given socio-economic class—indigenous people, if you like—are better qualified to deal with other members of their class than are those from another class. This is the echo, of course, of the contention that we mental health professionals come, by and large, from the middle class and cannot fully understand other classes both above us and below.

Suicide prevention was a matter of great concern to you. You warned that we might unwittingly help people to commit suicide. Yes, you heard me right. There are things that encourage thinking which will cause a person who is teetering in indecision to finally say, "Yes, I guess I'll jump." You said that the community may foster suicide. You insisted that we should look for hidden suicidal behavior, for the coded message of the potential suicide who needs help. We should learn, you said, to decode that message.

You suggested that the clergy is often the first person to help the person contemplating suicide. The church—the clergy—should be built very firmly into whatever system of suicide prevention the community

may develop. Many Tennesseans expressed astonishment to hear that Tennessee is one of the few states which have an active suicide prevention center, which functions in Chattanooga.

We heard that physicians who are not psychiatrists can, are, and should be involved rather deeply in psychotherapy; that the social and medical models are not separate but, rather, are continuous parts of the same system. The physician was urged to use both individual and group psychotherapies, to develop a sense of his own competency and to respect that sense. He was urged: "Do everything you can do. Do not do what you can't do. Know the difference." He also was urged, in any case to improve and continue to improve his interviewing techniques.

Our attention was called to mildly retarded persons, who were called a "pressing problem—a most pressing problem in today's society." They were called a unique part of humanity, because they look normal. They look normal as children and they look normal as adults. But they have the problem, the burden, of minimal intellectual impairment. However, the mildly retarded population can be cut in half by an aggressive program of an early enrichment of their intellectual environment.

Adolescents (Heaven knows!) also cause much wringing of hands. We were urged to stop treating this age group as a stepchild in mental health fields, although we agreed that working with teen-agers imposes an exhausting responsibility. However, for what it is worth to us and to other adults, we were reminded that the teenagers—particularly the delinquents—are themselves suffering too. Whatever their bravado, they really don't like, or respect, themselves. Believe it or not, that poor, old, long-suffering, much tormented man you always look for and cannot find when you need him, the policeman, is a friend to the young people. He is eager to help them, but he must enforce the law. You suggested that perhaps a part of the teenagers' problem is discovering how to deal with the hypocrisy of adults who ask him both to emulate them and to be a good boy—whatever that may mean. Everyone seemed to agree that adolescents are seeking understanding,

a feeling of importance, worthy models to follow and helpful limits.

It is also not surprising that we should have paid considerable attention to the family, because, as we brought out, the mental health of the individual is bound up with the mental health of his family. We worried a bit about childhood without fathers. We suggested the provision of a father on the community-level, to provide a father substitute—a male model which all children must have.

We said, and I guess no one could disagree, that good mental health for children must begin with a good emotional climate in the home during his formative years. I am afraid that we are still trying to find how to assure such a good mental health climate. We seem unable to decide just what a good climate is, when it comes to that. But we did say that the entire community must be geared to the provision of those basic services which the family needs to promote good mental health. We emphasized the family physician as one not only to recognize mental illness of the patient and his family, but also to be the strong advocate of community services for the mentally ill, and special preventive services.

Then we looked at another very important aspect of human life—religion. We realized that our colleagues of the cloth may sometimes violate the integrity of others. If they do not preach a balanced Gospel, they can develop anxiety and guilt and fail to offer God's forgiveness, reconciliation and restitution. But the group that discussed religion suggested that if ministers and physicians communicate fully and regularly with one another and work together personally and professionally, the clergyman can be made less destructive and, indeed, constructive. The group suggested that many people fail to find acceptance and help in the church because they see the church as the upholder of the status quo, rather than as an instrument of Christ. Religious faith is essential to total health. Faith is that which makes it possible for man to face that which he does not wish to face.

Needless to say, mental health involves the law. After all, law is the buttress which helps to keep the very society together. If we are going to have community mental

health, we must have law which makes the community possible. We discussed abortion and decided that this was a very difficult problem. We discussed society's criminal element, which accounts for a very small segment of the mentally ill population, as you know. This is a very important point that we should make to our friends and to the community at large, who somehow equate criminality and mental illness. Many seem to assume that mentally ill people tend to break laws. And, generally, tend to be antisocial in their actions. We pled for police officers to be given more opportunity to learn to understand the proper handling of mentally ill people.

The panel made the point that both the lawyer and the physician are concerned simultaneously with the protection of the community and of the rights of the individual.

We now look at sex education. (I must say that this Congress got down to some pretty "sticky" issues.) This discussion was not a bland mouthing of platitudes. It did not try to paint all issues as if they were bright sunlight streaming through a white fleecy cloud. Many real and honest "gut" issues were taken up. These are issues with which mankind has been grappling since before history began.

One seriously considered subject was sex education. The point was made that an appropriate sex education program is more than a resumé of physiology and of techniques of sexual intercourse. The group demanded that sex education broaden its concept to cover the entire spectrum of human relations; the formation of a person's sexual identity; the assumption of psychosexual roles; the psychologic aspects of marital adjustment; sex outside of marriage; family planning; social problems (such as illegitimacy and abortion), and sexual behavior in old age.

The point was made that sex education, as it is too often offered today, makes two crucial mistakes. (1) It over-emphasizes physical aspects of sex, and (2) it is offered too late in the adolescent years. This reminds me of a joke that I heard when I was twelve years old. The joke went something like this: "Dear—(whoever it was, the Dear Abby of the day),—should I discuss sex

with my fourteen-year-old daughter?" And the Dear-Abby-of-the-day replied, "By all means. You will learn a great deal."

Our culture is undergoing a revolution in its sexual customs, in family structure and, especially, in the role of woman. In other words, we have to teach our kids how to behave in a world which we have never known and, indeed, which no one can clearly predict. This is no small job for us to undertake.

We say that in sex education programs there should be cooperation between medical and nonmedical members of the mental health team, including doctors, clergymen and educators. Because of the complexity of the problems and because those problems inevitably arouse anxiety, unusually high degrees of collaboration and discussion are needed in the design and conduct of local sex education programs. Individual philosophical and ethical points of view differ. These differences must be resolved in some way, if one is not to disrupt the education program. But—and here is where "we get it between the eyes"—there is a great need to increase the sex knowledge of professional people, if they are to qualify to direct sex education activities in their communities.

We come once again to the role of the family physician in the treating of the emotionally disturbed people. The group's discussion started with the assumption that if you practice medicine you necessarily give psychiatric treatment. We finally concluded that there is a lack of communication among family physicians, psychiatrists, and

mental health organizations, both private and state. We deplored this, because efforts are duplicated and valuable mutual support does not occur. Such communication as does occur may be disruptively hostile and critical. We need to stress prevention and the early recognition of emotional illness by the front-line family doctor.

Once again, this discussion reminded us that Tennessee has a functioning Steering Committee, as I mentioned earlier, under the auspices of the Tennessee Medical Association. And this Steering Committee is very much concerned with the education and, inevitably, with the involvement, as a part of that education, of family physicians in the many aspects of psychiatric assistance in the community. Without the cooperation, said the group, and even sacrifice of all concerned toward the common goal of better patient care, no program can succeed.

And then the session, which immediately preceded this one at 11 o'clock this morning, emphasized the Congress' central theme and recapped the whole Congress:—Treatment and rehabilitation are community responsibilities and all must share in them, under medical leadership, when appropriate, and under lay leadership, when appropriate, but always with the close involvement and collaboration between the pros and the non-pros.

When you come right down to it, I guess everybody is a pro in some respect. So, maybe we should say that there should always be close involvement and collaboration among the many.

* * *

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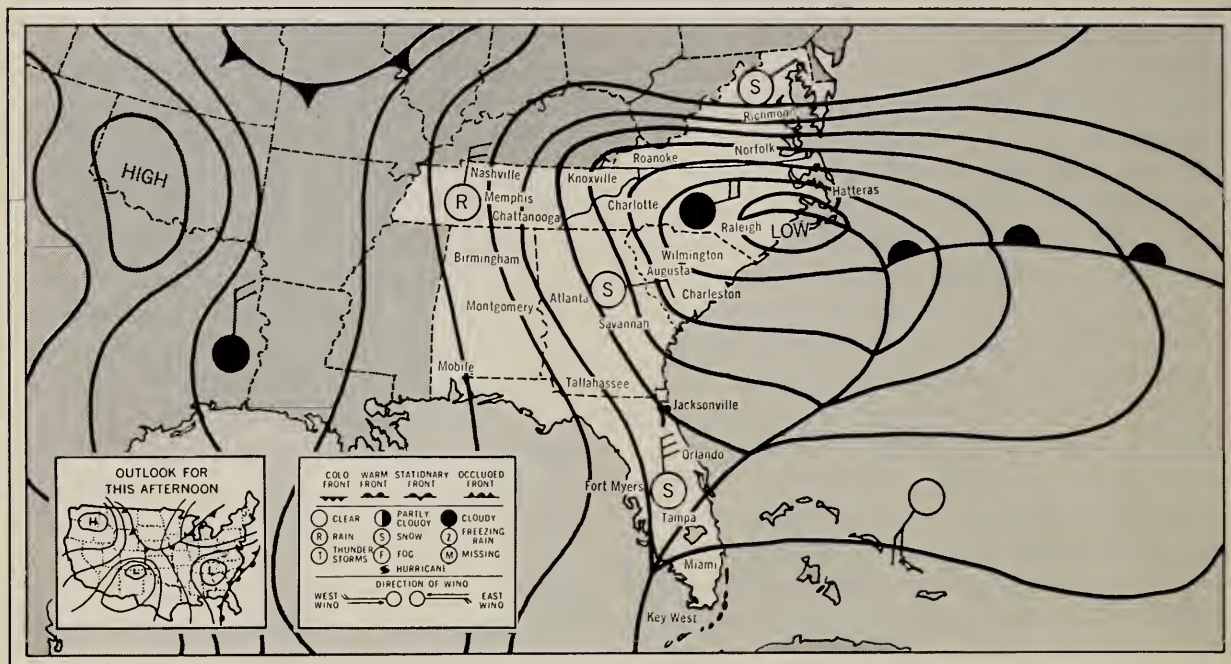
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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

RESUME OF BOARD OF TRUSTEES ACTIONS

Meeting of January 14-15, 1967

Appointment of Nominating Committee

● In keeping with Chapter V, Section 2 of the By-Laws, the Board appointed a Nominating Committee for 1967 from the list of eligible delegates certified by the County Medical Societies. The following physicians were named to constitute the Nominating Committee:

EAST TENNESSEE: John H. Saffold, M.D., Knoxville; George G. Young, M.D., Chattanooga; E. L. Caudill, Jr., M.D., Elizabethton.

MIDDLE TENNESSEE: Chas. C. Trabue, IV, M.D., Nashville; John O. Williams, M.D., Mt. Pleasant; Wm. A. Hensley, Jr., M.D., Cookeville.

WEST TENNESSEE: Harold B. Boyd, M.D., Memphis; Charles N. Hickman, M.D., Bells; Byron O. Garner, M.D., Union City.

The secretaries of all county medical societies in the state have been notified of the composition of the Nominating Committee.

Impact Board of Directors Named

● The Board of Directors for Independent Medicine's Political Action Committee—Tennessee, as appointed by the TMA Board of Trustees were:

First District—E. Kent Carter, M.D., Kingsport; Second District—Richard C. Sexton, Jr., M.D., Knoxville; Third District—Frank B. Graham, M.D., Chattanooga; Fourth District—Claude M. Williams, M.D., Cookeville; Fifth District—I. A. Nelson, M.D., Nashville; Sixth District—J. O. Williams, M.D., Mt. Pleasant; Seventh District—Lee Rush, Jr., M.D., Somerville; Eighth District—Tom W. Johnson, Jr., M.D., Dyersburg; Ninth District—B. G. Mitchell, M.D., Memphis.

Committee Appointments

● The appointments to the Standing and Special Committees of the Association for 1967-68 were made. The appointments will be finally approved and will become effective following the annual meeting in April. In addition, the Board selected six physicians for submission to the Governor when the request is made for representation on the Advisory Committee to the Title XIX Program.

In considering recipients for the Distinguished Service Award, no nominees were submitted by any individual or county society and the Board resolved not to make the award for 1967.

Relocating TMA Headquarters

● The Board heard a report from the Executive Director concerning property adjoining the present headquarters office and its availability for sale. The Board had previously made an offer for the property for additional land for the expansion of the TMA headquarters. The Association's offer was rejected. A report was made relative to other available properties within the area of the headquarters. The Board directed the Long-Range Planning Committee to further study the recommendations and outline the expected needs for expansion in the foreseeable future.

Powers of Board of Trustees Re TMA Funds

● The Board, upon legal advice of the TMA attorney, finalized an amendment for submission to the House of Delegates, as follows: "Be it resolved that Article IX of the Constitution of the Tennessee Medical Association be amended by adding at the end of such article an additional section as follows: Section 7. The Board of Trustees shall have such powers to invest the funds of the Association as are granted by law to General Welfare Corporations as such Law from time to time may be amended."

An additional amendment will be submitted to change the name of the Grievance Committee to the "Mediation Committee."

Financial Audit for 1966 Fiscal Year

● The Board considered and heard a report from Mr. Ezra Jones of the Grannis, Jones, Bond, Young and Foust, CPAs, relative to the annual audit of the Association fiscal records. The audit was approved.

Impact

● Dr. B. G. Mitchell, Chairman of the Board of Directors of IMPACT, reported on the activities and accomplishments of Independent Medicine's Political Action Committee—Tennessee for 1966. Dr. Mitchell requested TMA staff assistance to be designated to perform administrative functions of IMPACT. The Board directed the Executive Director to further determine with Dr. Mitchell and upon the advice of legal counsel, to develop a method of staffing IMPACT and improving educational activities and report to the Board in April.

Fourth Delegate to AMA House

● TMA qualified, as of January 1, 1967, for a fourth delegate in the AMA House of Delegates. The Board outlined a procedure as a suggested measure for electing the fourth delegate and alternate for the present year and it will be submitted to the House in the April session.

Board of Trustees' Resolutions to TMA's House

● The Board recommended for presentation in the House of Delegates, twelve resolutions establishing or reiterating policy on a number of issues. The twelve resolutions will be presented to the House on April 13th in Memphis.

Other Actions

● Reappointed Dr. John H. Burkhart, Knoxville, and Dr. Ben D. Hall, Johnson City, for three year terms on the TMA Student Education Fund Board — Approved co-sponsorship of a conference on aging with the Council on Aging of the State of Tennessee — Approved the submission of a resolution to the House of Delegates endorsing AMA's House action concerning prescription labeling of drugs — Upon the advice of delegates to the AMA, discussed and approved participation in hospitality operations at the AMA annual and clinical meetings — Reappointed the attorney for TMA and the auditing firm for the year 1967 — Approved the expenses of alternate delegates to attend the annual and clinical meetings of AMA in 1967 — Approved TMA participation in a sustaining membership in Student, American Medical Association — Selected a representative to attend the Emergency Medical Services meeting in Chicago, April 6-7 — Designated the Chairman of the Committee on Communications and Public Service to attend the AMA Congress on Environmental Health in April — Approved funds for equipment needed to update membership records and approved expenditures for maintenance and repairs for TMA headquarters building.

* * *

Hospital Based Physicians

● Hospital-based physicians who are not billing directly under Medicare may lose the chance if they do not switch soon. The Administration reportedly wants their services to be covered under Part A of Social Security. Robert M. Ball, Social Security Administrator, also indicates that a change in the Law may be proposed—to make such physicians stick to the billing practice now customary in their locality.

TMA 1967 Annual Meeting

● Memphis, April 13-15, will have something interesting and informative for every doctor. Better start now to make plans to attend and participate. Complete annual meeting program is published in this issue of the TMA Journal.

Public Service

THE TENNESSEE TEN

Hadley Williams, Assistant Executive Director

Medicare Certification

- Regulations covering certification and recertification of the medical necessity of hospitalization of Medicare beneficiaries have been issued.

The Medicare Law presently requires that, in order for a hospital, or other facility, to receive payment for covered services, a physician must certify the medical necessity of the services rendered to the beneficiary. The law also requires that the first recertification may not be later than the 14th day of hospitalization nor the second recertification by the physician later than the 21st day of hospitalization, with the subsequent certifications made at intervals not to exceed 30 days.

One important distinction in the regulations should be noted. There is no requirement that a specific procedure or form be used by physicians. Social Security Commissioner Ball commented in a press release that the regulations permit the hospital medical and administrative staffs to work out these procedures for obtaining certifications and recertifications that are most convenient and satisfactory. The certification statements can be entered on forms or records the physician normally signs in caring for any of his patients.

In previous communications, Social Security has advised hospitals that the following suggested statement can be stamped or pre-printed on their medical record history form as a means of meeting the documentation of the certification requirements:

"In signing this personal history form, unless he indicates to the contrary hereon, the doctor whose signature appears on the face hereof gives the assurance of need for in-patient hospital services required for eligible patients by P.L. 89-97."

However, the Social Security Administration has further advised that it will accept a wide variance in form and language among individual hospitals which accomplish the same purpose.

Certification and recertification statements do not have to accompany the claim for payment submitted by the hospital or other provider. Instead, the hospital certifies to the Medicare fiscal intermediary that the statements have been obtained and are on file.

The AMA House of Delegates at the November Clinical meeting voted to advise HEW that the present requirement for certification and recertification has proved highly objectionable and unnecessary and does not contribute to the quality of medical care. The House also stated that it would seek amendments to the law which would delete requirement for physician certification.

Extended Care Benefits Begin

- Extended care benefits for Medicare recipients began January 1, 1967. Social Security estimates that approximately 2,500 facilities with a total capacity of well over 150,000 beds can meet the requirements for certification for the nursing home benefit.

The regional office of HEW in Atlanta has notified TMA that, as of February 20th, 32 facilities in Tennessee have

Promissory Notes Acceptable From Medicare Patients

been certified to accept Medicare beneficiaries. There are approximately 175 nursing homes in Tennessee.

Participating institutions include not only skilled nursing homes but also separately organized extended care units in hospitals, as well as some distinct skilled nursing units connected with residential homes for the aged.

● A recent decision of the Judicial Council of the AMA states that physicians may accept promissory notes from Medicare patients but they may not charge interest or a penalty if the fees are not paid within a prescribed period of time.

The Medicare patient is required to submit a receipted, itemized bill to the carrier before he can collect benefits under Part B of the program for physician's services. The promissory note may be used for this purpose. An earlier statement said that a physician can choose to accept a promissory note as payment for his services, if it is agreeable to the patient.

In answering the question regarding interest, since a promissory note bears interest and most note forms available from stationery stores have a space for interest, the Judicial Council said:

"Since the practice of medicine is a profession and not a business, the practices adopted by business are not necessarily suitable for professional practice. It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note or to charge a penalty on fees for professional services not paid within a prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection."

The AMA legal department suggests that the physician insert the word "no" or "zero" in the blank found in most promissory notes where the interest rate is to be given.

Utilization Committee Immunity Sought

● The Legislative and Public Policy Committee of TMA is seeking passage of a bill by the Tennessee General Assembly which would provide immunity from liability for physicians serving on hospital utilization review committees.

The action is a result of a resolution adopted by the AMA House of Delegates at the November Clinical meeting, urging states to seek passage of such laws.

The AMA House stated that, although utilization review committees are not empowered to discharge patients from the hospital since this is a decision to be made by the physician responsible for the patient's care, legal opinion raises serious question as to the Congress' authority to grant immunity from litigation which is essentially civil in nature and governed by state law.

Several state legislatures have granted such protection to physicians.

Additional Legislation

● Other areas of interest expressed by the Legislative Committee concerned the adoption of a permissive law regarding testing for PKU (Phenylketonuria) in newborns; a requirement that protective eye devices be worn by those attending certain laboratory and shop courses in schools; and an amendment to the state's mental health law which would allow for a physician's testimony in commitment procedures to be given by deposition or affidavit with the consent of the patient or his counsel.

The committee is also on record as favoring an increase in the amount of medical benefits allowable for recipients of Workman's Compensation.

The committee also has under study a proposal by the Tennessee Department of Public Health to license and regulate medical laboratories. The committee is of the opinion that such a law should not include regulation of a laboratory operated by a physician in his office solely as an adjunct to the treatment of his own patients.

Special Section

SCIENTIFIC PROGRAM OF THE 132ND ANNUAL MEETING OF THE TENNESSEE MEDICAL ASSOCIATION

General Information

► The official program contains detailed information on the 1967 annual meeting of the Tennessee Medical Association, conducted in Memphis, Tennessee, April 13-14-15, 1967.

► Registration

The registration desk will be located in the lobby of the Sheraton-Peabody Hotel, Memphis. All members, visiting speakers, interns, residents, exhibitors, and guests are urged to register. Admission to all meetings and sessions and to the exhibits is by a badge secured at the registration desk. **THERE IS NO REGISTRATION FEE.**

Programs for all activities during the annual meeting are available at the registration desk. Those eligible to register are: Members of the Tennessee Medical Association; physicians from other states who are members of their respective state medical associations; residents, interns, medical students and guests.

► Registration Hours

(All times are Central Standard Time)

Thursday, April 13, 8:00 A.M.

(Special registration for members of the House of Delegates from 8:00 A.M. to 1:00 P.M.)
(Advance registration for exhibitors and early arrivals from 8:00 to 10:00 A.M. and after 1:00 P.M.)

Friday, April 14 . . . 8:00 A.M. to 5:00 P.M.

Saturday, April 15 . . . 8:00 A.M. to 5:00 P.M.

► Annual Meeting Headquarters

Headquarters are located in the Sheraton-Peabody Hotel, Memphis, where many activities are scheduled. The majority of the specialty societies will conduct their meetings concurrently with TMA in Memphis. Others will be conducted in the hotels in Memphis. Specialty societies meeting outside of the Sheraton-Peabody are listed in this program under the "days" that the various societies are to meet.

► TMA Headquarters Office

The TMA headquarters offices will be located in Rooms 202-203 of the Sheraton-Peabody Hotel, Memphis, during the meeting.

A member of the staff will be available to assist you at all times. Members of the House of Delegates, Officers, and Reference Committee Chairmen can secure secretarial help when needed. Your headquarters staff is available to assist you in your needs.

J. E. BALLENTINE, *Executive Director*

L. HADLEY WILLIAMS, *Asst. Executive Director and Public Service Director*

TOM SAWYER, *Field Secretary*

MORRIS M. BRADLEY, *Administrative Asst.*

MISS WILLARD BATEY, *Records and Bookkeeping*

MRS. DORIS DARROW, *Secretary*

MRS. SARAH WATKINS, *Secretary*

MRS. JEAN RAGSDALE, *Secretary*

► President's Banquet and Social Hour

The President's Banquet will be preceded by a Social Hour sponsored by the Tennessee Medical Association, beginning at 6:00 P.M. on Saturday evening, April 15, in the Sheraton-Peabody Hotel.

The BANQUET will follow at 7:00 P.M. in the Sheraton-Peabody Hotel. **TICKETS ARE AVAILABLE AT THE REGISTRATION DESK.** A limited number can be accommodated. **GET YOUR TICKETS EARLY.**

► Communications—

Emergency Telephones

Memphis—526-7644 and 526-7645

A blackboard will be placed in a conspicuous location in the Hotel mezzanine floor where doctors' calls will be listed. **PLEASE CHECK OFTEN WITH THE LISTINGS ON THE CALL BOARD.**

► Specialty Society Luncheon Tickets

Tickets to specialty society banquets and luncheons, as well as the Woman's Auxiliary affairs, can be obtained from Specialty Societies, respective registration desks. **PURCHASE YOUR TICKETS AT THE TIME OF REGISTRATION.** The number that can be accommodated is limited.

► House of Delegates

The first session of the House of Delegates will be held on Thursday, April 13, beginning at 1:00 P.M. in the Sheraton-Peabody Hotel. The second session will be conducted on Saturday, April 15, beginning at 1:00 P.M. in the same hotel.

► Scientific Meetings

The scientific presentations at the 132nd annual meeting of TMA will be presented on Friday and Saturday morning, April 14-15. (See complete program under the "days" as listed herein.) The specialty societies meeting concurrently with the Tennessee Medical Association will conduct their scientific programs and business during the afternoons of April 13-14 and 15. Please see the program listing the scientific meetings of the TMA and the specialty societies each day. Every member attending is welcome to attend any scientific meeting of any specialty society. *Of special interest will be presentations of importance and general interest by guest speakers on Friday and Saturday, April 14 and 15.* Please note topics and outstanding speakers listed in this program.

► Specialty Societies

Sixteen specialty societies are conducting their

meetings concurrently with the Tennessee Medical Association in Memphis. Scientific and business sessions of the specialty societies will be conducted on April 13-14-15. SEE DETAILS IN THIS PROGRAM LISTED UNDER EACH OF THE ABOVE DATES AND UNDER "ANNOUNCEMENTS."

► *Woman's Auxiliary*

The Woman's Auxiliary to TMA will conduct all sessions of its annual meeting at the Holiday Inn-Rivermont in Memphis. The registration desk of the Auxiliary will be located in the Holiday Inn-Rivermont and all committee meetings, board meetings, and general sessions will be conducted there.

► *Scientific Exhibitors*

Several educational and scientific exhibits will be presented. These will be displayed in the exhibit area of the Sheraton-Peabody.

► *Technical Exhibitors*

The technical exhibitors will be located on the lobby and mezzanine floors of the Sheraton-Peabody Hotel. They may be visited each day of the annual meeting beginning on Thursday, April 13, from 1:00 P.M. until 4:00 P.M.—and continued from 9:00 A.M. until 5:00 P.M. on Friday and Saturday, April 14 and 15. Exhibitors are an important part of the 132nd Annual Meeting and each physician will be well repaid by spending some time visiting them and inspecting their exhibits. The exhibits will display many educational features of medical supply and latest developments in scientific undertaking.

Technical Exhibitors

Technical exhibits for the 1967 Annual Meeting will be displayed in the Sheraton-Peabody Hotel on the lobby and mezzanine floors. The newest developments in pharmaceuticals, equipment and services will be on display, with full information available through trained and experienced representatives.

Exhibits will be open Thursday, April 13, at 1:00 P.M., and Friday and Saturday from 9:00 A.M. to 5:00 P.M. All physicians will find their time well spent in visiting exhibits and keeping abreast of what is new and useful. *YOUR ATTENDANCE IS URGED*, for your benefit as well as for an expression of cooperation with our exhibitors.

ABBOTT LABORATORIES
North Chicago, Illinois
B. F. ASCHER & COMPANY, INC.
Kansas City, Missouri
ASTRA
Worcester, Massachusetts
AUTOMATED MANAGEMENT SYSTEMS OF TENN., INC.
Memphis, Tennessee
AYERST LABORATORIES
New York, New York
BRISTOL LABORATORIES
Syracuse, New York
CIBA PHARMACEUTICAL COMPANY
Summit, New Jersey
THE COCA-COLA COMPANY
Atlanta, Georgia

Booth 39
Mezzanine
Booth 20
Mezzanine
Booth 14
Lobby

Booth 47
Mezzanine
Booth 37
Mezzanine
Booth 56
Mezzanine
Booth 10
Lobby
Booth 45
Mezzanine

DAIRY COUNCILS OF TENNESSEE

Appalachian Area, Chattanooga,
Knoxville, Memphis and Nashville
DEPUY MANUFACTURING CO.

Warsaw, Indiana
DICTATION, INC.

Memphis, Tennessee
EDISON VOICEWRITER

Nashville, Tennessee
ELI LILLY AND COMPANY

Indianapolis, Indiana
ENCYCLOPEDIA BRITANNICA

Chicago, Illinois
FARRINGER AND COMPANY

Nashville, Tennessee
FLINT LABORATORIES

Morton Grove, Illinois
GEIGY PHARMACEUTICALS

Ardsley, New York
KAY SURGICAL, INC.

Memphis, Tennessee
THE LANIER COMPANY

Atlanta, Georgia
MALKIN INSTRUMENT

Louisville, Kentucky
MALLINCKRODT PHARMACEUTICALS

St. Louis, Missouri
MEMPHIS MEDICAL SOCIETY INVESTMENT

RETIREMENT PLAN
(Denby Brandon Company)

Memphis, Tennessee
MEAD JOHNSON LABORATORIES

Evansville, Indiana
MEDRIC, INC. AND F.A.B., INC.

Memphis, Tennessee
MERCK, SHARP & DOHME

West Point, Pennsylvania
MUTUAL BENEFIT LIFE INSURANCE CO.

(Dunn-Lemly-Sizer)
Nashville, Tennessee
NASHVILLE SURGICAL SUPPLY COMPANY

Nashville, Tennessee
NORELCO DICATIONS SYSTEMS CO.

Memphis, Tennessee
ORTHO PHARMACEUTICAL CORP.

Raritan, New Jersey
HEWLETT PACKARD COMPANY-

SANBORN DIVISION
Huntsville, Alabama

PALMEDICO, INC.
Columbia, South Carolina

PARKE, DAVIS AND COMPANY
Detroit, Michigan

PLOUGH, INC.
Memphis, Tennessee

WILLIAM P. POYTHRESS & CO., INC.
Richmond, Virginia

PROFESSIONAL MANAGEMENT, INC.
Nashville, Tennessee

A. H. ROBINS COMPANY
Richmond, Virginia

W. B. SAUNDERS COMPANY
Philadelphia, Pennsylvania

SELECTO-VOX CORPORATION
Nashville, Tennessee

SMITH-MILLER & PATCH, INC.
New York, New York

SMITH, REED, THOMPSON & ELLIS CO.
Nashville, Tennessee

SQUIBB
New York, New York

TENNESSEE GUILD OPTICIANS
Nashville, Tennessee

THE UPJOHN COMPANY
Kalamazoo, Michigan

U. S. TOBACCO
New York, New York

U. S. VITAMIN & PHARMACEUTICAL CORP.
New York, New York

Booth 38
Mezzanine

Booth 13
Lobby

Booth 52
Mezzanine

Booth 15
Lobby

Booth 46
Mezzanine

Booth 58
Mezzanine

Booth 44
Mezzanine

Booth 12
Lobby

Booth 50
Mezzanine

Booth 21
Mezzanine

Booth 31
Mezzanine

Booth 43
Mezzanine

Booth 35
Mezzanine

Booth 5
Lobby

Booth 51
Mezzanine

Booth 34
Mezzanine

Booth 54
Mezzanine

Booth 57
Mezzanine

Booth 42
Mezzanine

Booth 26
Mezzanine

Booth 16
Lobby

Booth 32
Mezzanine

Booth 33
Mezzanine

Booth 53
Mezzanine

Booth 36
Mezzanine

Booth 24
Mezzanine

Booth 9
Lobby

Booth 28
Mezzanine

Booth 6
Lobby

Booth 55
Mezzanine

Booth 30
Mezzanine

Booth 41
Mezzanine

Booth 59
Mezzanine

Booth 22
Mezzanine

Booth 49
Mezzanine

Booth 40
Mezzanine

Booth 48
Mezzanine

Booth 48
Mezzanine

VISIT THE EXHIBITS

The scientific meetings will be recessed twice for thirty minutes on each day to give doctors an opportunity to visit with the exhibitors.

MORRIS M. BRADLEY
Exhibit Manager

ANNOUNCEMENTS— SPECIAL MEETINGS— EVENTS—FEATURES



President's Banquet
Sheraton-Peabody Hotel
Saturday, April 15—7:00 P.M.
Social Hour—6:00 P.M.
Sponsored by TMA

G. Baker Hubbard, M.D., President,
Presiding
Introduction of President-Elect—
K. M. Kressenberg, M.D.

Special Awards:

Presenting Tennessee's Outstanding Physician
of the Year—By: Tom E. Nesbitt, M.D., Speaker
of the House of Delegates

Presenting Health Project Contest Winner—By:
John C. Burch, M.D., Chairman of the Board

* * *

The banquet is for TMA members, their wives and guests. Join your colleagues in dining and dancing to the music of Berl Olswanger and his orchestra, "Mr. Music Man."

Public Health Council

The Public Health Council will meet in Room 344 of the Sheraton-Peabody Hotel at 10:00 A.M. Friday, April 14.

Please Reserve Luncheon Tickets Early

A number of the specialty societies meeting with TMA will sponsor luncheons during the annual meeting.

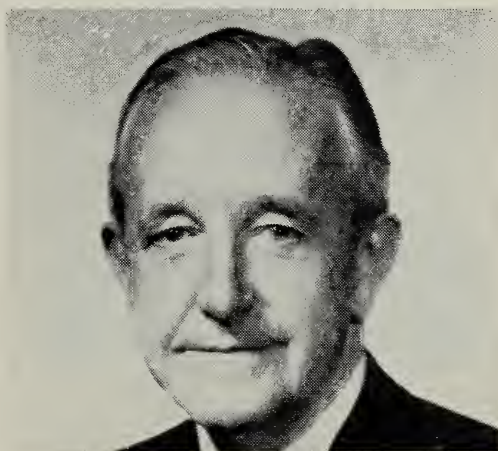
**PLEASE MAKE RESERVATIONS FOR
LUNCHEONS YOU ARE PLANNING TO AT-
TEND.**

These should be made with the secretary of the specialty society.

Tennessee Chapter—American College of Surgeons Banquet

The Tennessee Chapter of the American College of Surgeons announces that the famous "Sing-

ing Doctors" from the Greene County Medical Society, Springfield, Missouri, will furnish the entertainment at the banquet on Friday evening, 6:00 P.M., April 14, 1967. The "Singing Doctors" have recorded nationally and have several albums that are extremely popular. The albums are zany, hilarious, and they now have produced their fourth popular medical hit parade series. TMA MEMBERS AND THEIR GUESTS ARE INVITED TO ATTEND THE BANQUET AND HEAR THIS OUTSTANDING GROUP OF SINGING DOCTORS. MAKE YOUR RESERVATIONS EARLY. TICKETS MAY BE OBTAINED AT THE REGISTRATION DESK. The banquet will be held in the Sheraton-Peabody Hotel.



CHARLES L. HUDSON, M.D.
Cleveland, Ohio
President, American
Medical Association

Subject: "THE PHYSICIAN IN SOCIETY"

As a further effort by TMA to keep its membership informed, Dr. Hudson will present an important address in the general scientific meeting on Saturday morning at 11:00 A.M., April 15th. You cannot afford to miss this address.

A practicing internist for 33 years, Dr. Hudson has won distinction as a physician, teacher, and leader in community health affairs. He has served the medical profession tirelessly as a member or chairman of nearly a score of Councils and Committees of the American Medical Association. He is a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians and a member of the American Federation for Clinical Research. YOU CAN HONOR THIS MEDICAL LEADER WITH YOUR ATTENDANCE TO HEAR HIS ADDRESS.

Notice

YOU'RE INVITED

7:15 A.M.—Saturday, April 15
to the
IMPACT Breakfast
Sheraton-Peabody Hotel
Memphis
to hear



DR. NICHOLAS NYARADI

"OPERATION CONFUSION"

Dr. Nyaradi, Director of the School of International Studies at Bradley University, Peoria, Illinois, is a former Minister of Finance of Hungary. Dr. Nyaradi is an author of note and is renowned for his knowledge about the Soviet Union, as he spent seven months in Moscow negotiating a Russian reparation claim against Hungary. He has received honor medals for his addresses over the Country by the Freedoms Foundation at Valley Forge.

The Breakfast is sponsored by Independent Medicine's Political Action Committee—Tennessee (IMPACT)—You will want to attend—

NOTICE

The scientific presentations of all of the specialty societies meeting concurrently with the Tennessee Medical Association, are open to all physicians registered at the annual meeting. Attend the meeting of your choice.

Technical Exhibits

The technical exhibits are located on the lobby and mezzanine floors of the Sheraton-Peabody

Hotel. They are open daily at 9:00 A.M. (except Thursday). The exhibits display many educational features of the medical supply world which should be of interest to doctors.

TMA Board of Trustees Meeting

The TMA Board of Trustees will meet in Room 214 of the Sheraton-Peabody Hotel at 9:00 A.M. on Sunday, April 16.

Woman's Auxiliary to the Tennessee Medical Association

April 12-13-14, 1967

Holiday Inn-Rivermont, Memphis

The Woman's Auxiliary will conduct its annual meeting at the Holiday Inn-Rivermont. The registration desk will be located in the Lobby. With the exception of the President's Luncheon on Friday, April 14th, all committee meetings, the general session and Board meetings will be held at the Inn.

The official program begins Wednesday afternoon, April 12th, 1967. The convention headquarters will be Holiday Inn-Rivermont where the 39th Annual Convention will be in session.

Registration

Wednesday, April 12—2:00 P.M.-5:00 P.M.

Thursday, April 13—9:00 A.M.-4:30 P.M.

Friday, April 14—9:00 A.M.-12:30 P.M.

Complete details and schedule of events and meetings of the Woman's Auxiliary are listed in this program under the days they will occur, Thursday and Friday.

Arts and Crafts Exhibit

The Arts and Crafts Exhibit of the Woman's Auxiliary will be conducted in the Holiday Inn-Rivermont. Doctors and their wives are urged to participate in the exhibit.

TENNESSEE OBSTETRICAL AND GYNECOLOGICAL SOCIETY

Thursday, April 13, 1967
6:30 P.M.

SOCIAL HOUR AND BANQUET
Holiday Inn-Rivermont

* * *

TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

Friday, April 14, 1967

12:00 Noon
COUNCIL LUNCHEON
 Room 213 Sheraton-Peabody Hotel
 Saturday, April 15, 1967
TRAUMA COMMITTEE—LUNCHEON
 Room 213 Sheraton-Peabody Hotel



**TENNESSEE DISTRICT BRANCH
 AMERICAN PSYCHIATRIC
 ASSOCIATION**

Friday, April 14, 1967
 6:30 P.M.
SOCIAL HOUR AND BANQUET
 (By reservation)
 Summit Club—Memphis

* * *

**VANDERBILT MEDICAL ALUMNI
 ASSOCIATION**

April 14, 1967
 5:30-7:00 P.M.
COCKTAILS
 Top of the 100 Club
 (100 North Main Bldg.)
 Memphis
 Vanderbilt Host—Randolph Batson, M.D.

PROGRAM

Thursday, April 13, 1967

1:00 P.M. (C.S.T.)

House of Delegates
 Georgian Room, Sheraton-Peabody
 Hotel—Memphis

**SPECIALTY SOCIETIES
 MORNING**



**TENNESSEE STATE
 ORTHOPAEDIC SOCIETY**

9:00 A.M.

Business Meeting
 Room 216 Sheraton-Peabody Hotel

**WOMAN'S AUXILIARY TO THE
 TENNESSEE MEDICAL
 ASSOCIATION**

April 12-14, 1967
**CONVENTION HEADQUARTERS
 HOLIDAY INN-RIVERMONT**

* * * * *

39th Annual Convention

Wednesday, April 12, 1967

2:00 P.M.-5:00 P.M. Registration
LOBBY—HOLIDAY INN-RIVERMONT

2:00 P.M.-5:00 P.M.

Special Committee Meetings (Awards, Finance,
 Revisions)—President's Suite, Holiday Inn-
 Rivermont

2:00 P.M.-5:00 P.M.

Entries accepted for Arts and Crafts Show at
 Holiday Inn-Rivermont

Thursday, April 13, 1967

Holiday Inn-Rivermont

9:00 A.M.-4:30 P.M.

Registration—Lobby

8:00 A.M.

Pre-Convention Board Breakfast

10:00 A.M.

General Convention Session

12:30 P.M.

Luncheon and Fashion Show by Julius Lewis at
 Holiday Inn-Rivermont

2:45 P.M.

Shopping tour to Southland Mall and Barzizza's

9:30 A.M.-4:00 P.M.

Hospitality Room Open
 (Visit Arts and Crafts Exhibit)

**SPECIALTY SOCIETIES
 AFTERNOON**

**TENNESSEE STATE
 ORTHOPAEDIC SOCIETY**

Room 200

Sheraton-Peabody Hotel

THURSDAY, APRIL 13, 1967

12:00 Noon

LUNCHEON

GUEST SPEAKER: VERNON L. NICKEL, M.D.,
Medical Director, Rancho Los Amigos Hospital,
Downey, California; Associate Clinical Profes-
sor of Orthopaedic Surgery, Loma Linda Uni-
versity

SCIENTIFIC PROGRAM

1:00 P.M.

"Meralgia Paresthetica: Operative Findings and Treatment"

By: PAUL H. WILLIAMS, M.D., Memphis

1:20 P.M.

(Discussion)

1:30 P.M.

"Non-Pigmented Villanodular Synovitis of the Hip"

By: JAMES G. MCCLURE, M.D., Memphis

1:50 P.M.

(Discussion)

2:00 P.M.

"Preservation of the Body Image in Treatment of Orthopaedic Problems"

By: ERNEST DEHNE, M.D., Memphis (By invita-
tion)

2:20 P.M.

(Discussion)

2:30 P.M.

Intermission to Visit Exhibits

3:15 P.M.

"Use of the Halo Fixation for Cervical Spine Disabilities"

By: VERNON L. NICKEL, M.D., Downey, California

3:45 P.M.

"Early Experience with Leg Lengthening"

By: A. S. EDMONSON, M.D., JOE BOALS, M.D.,
KEITH VANDEN BRINK, M.D., Memphis

4:05 P.M.

(Discussion)

4:15 P.M.

"Epiphysiolysis of the Medical Clavicle" (With Movie)

By: ARTHUR L. BROOKS, M.D., Nashville

4:35 P.M.

(Discussion)

TENNESSEE ACADEMY OF OPHTHALMOLOGY

Louis XVI Room Sheraton-Peabody Hotel

THURSDAY, APRIL 13, 1967

12:00 Noon

LUNCHEON AND PANEL DISCUSSION

Panelists: MARSHALL M. PARKS, M.D., Washington,
D. C.

PHILIP M. LEWIS, M.D., Memphis

JAMES H. ELLIOTT, M.D., Nashville

SCIENTIFIC PROGRAM

1:25 P.M.

Meeting Called to Order

By: FRED A. ROWE, M.D., President

1:30 P.M.

"Von Hippel's Angiomatosis Retinae"

By: HENRY GRIZZARD, M.D. and JAMES E. WILSON,
M.D., Memphis

1:45 P.M.

**"Treatment of Patients with Advanced Glaucoma-
tous Field Defects"**

By: G. ALLEN LAWRENCE, M.D., Nashville

2:00 P.M.

"Relationship of Diabetes Mellitus to Glaucoma"

By: ROGER L. HIATT, M.D., DENNIS E. HALL, B.S.,
and DAVID SORGEN, M.D., Memphis

2:15 P.M.

**"Therapeutic Evaluation of Retrobulbar Reposi-
tory Steroid Injection"**

By: ALICE R. DEUTSCH, M.D., Memphis

2:30 P.M.

Intermission to Visit Exhibits

2:45 P.M.

GUEST SPEAKER

MARSHALL M. PARKS, M.D., Washington, D. C.

Subject: **"The Management of Congenital
Cataracts"**

3:15 P.M.

"Micro-Surgery of Congenital Cataracts"

By: FREDRICK HAMPTON ROY, M.D., Memphis

CASE REPORTS

3:30 P.M.

"Histocytosis X, Disseminated"

By: LEE ROGERS, M.D., Memphis

3:45 P.M.

"Congenital Staphyloma of the Cornea"

By: JOHN CUNNINGHAM, M.D., Chattanooga, and
I. LEE ARNOLD, M.D., Chattanooga

4:00 P.M.

"Epithelization of the Anterior Chamber Following Penetrating Keratoplasty"

By: JAMES H. ELLIOTT, M.D., Nashville; HOWARD M. LEIBOWITZ, M.D., and ARTHUR BORUCHOFF, M.D., Boston

4:15 P.M.

"Corneal Changes Secondary to Chloroquine Therapy"

By: J. ED CAMPBELL, JR., M.D., Knoxville

**TENNESSEE ACADEMY OF
OTOLARYNGOLOGY**

Louis XVI Room

Sheraton-Peabody Hotel

THURSDAY, APRIL 13, 1967

12:00 Noon

LUNCHEON AND BUSINESS MEETING

(Joint luncheon of both sections of the Tennessee Academy of Ophthalmology and Otolaryngology. Following a business meeting, the scientific program for the ENT Section will begin at 2:00 P.M. in Room 314.)

SCIENTIFIC PROGRAM

Room 314

Sheraton-Peabody Hotel

2:00 P.M.

"The Use of the Operation Microscope in Peroral Laryngeal Surgery"By: WILLIAM G. KENNON, JR., M.D., Nashville
JERRALL P. CROOK, M.D., Nashville

2:20 P.M.

Discussion—By: EDWIN W. COCKE, M.D., Memphis

2:30 P.M.

"A Further Report on the Sacculotomy Operation"

By: CLYDE T. ALLEY, M.D., Nashville

2:50 P.M.

"A Further Report on the Epidural Endolymphatic Shunt Operation"

By: JOHN J. SHEA, JR., M.D., and ANTONIO MAZZONI, M.D., Memphis

3:10 P.M.

"A Preliminary Report on the Cryosurgical Treatment of Vertigo"

By: M. COYLE SHEA, M.D., Memphis

3:20 P.M.

"The Treatment of Vertigo with Intravenous Inovar"

By: GEORGE L. MILLER, M.D., Memphis

3:30 P.M.

Discussion—By: PAUL H. WARD, M.D., Nashville
JAMES T. ROBERTSON, M.D., Memphis

3:50 P.M.

Coffee Break

4:00 P.M.

"Cylindromas of the Head and Neck"

By: CHARLES W. COX, M.D., Memphis

4:15 P.M.

"Basic Principles in the Use of Adjacent Flaps in Head and Neck Surgery"

By: EDWIN N. RISE, M.D., and R. WAYNE MARTIN, M.D., Memphis

4:30 P.M.

"Electro Cautery in Tonsils and Adenoid Removal Using Fluothane Anesthesia"

By: (To be announced)

Discussion—By: CHARLES E. LONG, M.D., Memphis
J. MAC SAMS, M.D., Johnson City
GEORGE L. MILLER, M.D., Memphis**General Discussion**

5:00 P.M.

Cocktails

(Location to be announced)

**TENNESSEE ACADEMY OF
PREVENTIVE MEDICINE AND
PUBLIC HEALTH
and
TENNESSEE INDUSTRIAL
MEDICAL ASSOCIATION**

Room 303-07

Sheraton-Peabody Hotel

THURSDAY, APRIL 13, 1967

Members of the

Tennessee Academy of General Practice
are invited to attend.**SCIENTIFIC PROGRAM**

1:30 P.M.

"Current and Future Issues in Occupational (Industrial) Medicine"

By: JEAN S. FELTON, M.D., Professor of Occupational Medicine, University of Southern California, Los Angeles

(Discussion)

2:15 P.M.

"Computer Electrocardiography"

By: JAMES K. COOPER, M.D., Heart Disease Con-

trol Program, National Center for Chronic Disease Control, U. S. Public Health Service, Washington, D. C.

(Discussion)

Business Meeting

Adjourn—Visit Exhibits



**TENNESSEE OBSTETRICAL AND
GYNECOLOGICAL SOCIETY**

THURSDAY, APRIL 13, 1967

6:30 P.M.

Social Hour and Banquet

Holiday Inn-Rivermont

Friday, April 14, 1967
SCIENTIFIC MEETINGS
MORNING

General Scientific Program

Continental Ballroom Sheraton-Peabody Hotel

Presiding: ROBERT M. MILES, M.D., Memphis, Scientific Program Committee

9:00 A.M.

PANEL DISCUSSION

"The Thyroid Dilemma"

"Toxic and Nontoxic, Diffuse and Nodular Goiter"

Moderator: ISIDORE COHN, JR., M.D., Professor and Chairman, Department of Surgery, Louisiana State University School of Medicine, New Orleans, Louisiana

"Pathogenesis of Goiter"

WILLIAM STEPHEN COPPAGE, M.D., Endocrinological Research, Veterans Administration Hospital, Nashville

"Indications for and Results of Therapy"

Medical—WILLIAM M. LAW, M.D., Internist and Clinician, Knoxville

Surgical—BENTLEY P. COLCOCK, M.D., Lahey Clinic, Boston, Massachusetts

10:00 A.M.

Intermission—Visit Exhibits

10:30 A.M.

PANEL DISCUSSION: "Governmental Medical Care"

Moderator: TOM E. NESBITT, M.D., Urologist, Nashville (Speaker, TMA House of Delegates)

Panelists: DONOVAN F. WARD, M.D., Immediate Past-President, American Medical Association, Dubuque, Iowa
G. BAKER HUBBARD, M.D., Surgeon, President, Tennessee Medical Association, Jackson
WESLEY W. HALL, M.D., Chairman, Board of Trustees, American Medical Association, Reno, Nevada
ERWIN WITKIN, M.D., Medical Consultant, Bureau of Health Insurance, U. S. Department of Health, Education and Welfare, Social Security Administration, Baltimore, Maryland



**WOMAN'S AUXILIARY TO THE
TENNESSEE MEDICAL
ASSOCIATION**

FRIDAY, APRIL 14, 1967

Holiday Inn-Rivermont

PROGRAM

9:00 A.M.-12:30 P.M.

Registration—Lobby

9:30 A.M.-11:30 A.M.

"MEMPHIS, OLD AND NEW"

(Bus tour leaving Holiday Inn-Rivermont)

9:00 A.M.-12:30 P.M.

Hospitality and Arts and Crafts Open

1:00 P.M.

President's Luncheon

(Summit Club, atop First National Bank Bldg., Madison at Third Street)

Awards and Installation of Officers

3:30 P.M.

**Post-Convention Board Meeting
Holiday Inn-Rivermont**

4:00 P.M.-5:00 P.M.

(Pick up Arts & Crafts Exhibits)

SPECIALTY SOCIETIES

AFTERNOON

**TENNESSEE CHAPTER—
AMERICAN COLLEGE OF
SURGEONS**

Venetian Room

Sheraton-Peabody Hotel

Memphis

FRIDAY, APRIL 14, 1967

WELCOME

The Tennessee Chapter, A.C.S. extends a cordial invitation to all physicians attending the TMA meeting, to be the guests at the scientific sessions of the A.C.S. on Friday, April 14, 1967. Residents, Interns and Students are especially invited.

PROGRAM

Presentations by members limited to fifteen minutes in length.

DAVID DUNAVANT, M.D., presiding

SCIENTIFIC PROGRAM

1:30 P.M.

"Major Vessel Trauma Concomitant with Fractures of the Bones of the Extremities"

By: DAVID R. PICKENS, JR., M.D., Nashville

"Lesions Simulating the Protruded Intravertebral Disk"

By: HAROLD B. BOYD, M.D., Memphis

"Ileal Bypass in Intractable Obesity and in Atherosclerosis"

By: H. WILLIAM SCOTT, JR., M.D., Nashville

"Recurrent Carcinoma of the Colon"

GUEST SPEAKER: ISIDORE COHN, JR., M.D., Professor of Surgery and Chairman of the Department, Louisiana State University School of Medicine, New Orleans

Intermission—Visit Exhibits

H. WILLIAM SCOTT, JR., M.D., presiding

"The Surgical Treatment of Diverticulitis of the Colon"

GUEST SPEAKER: BENTLEY P. COLCOCK, M.D., Lahey Clinic, Boston

"Ileofemoral Thrombophlebitis"

By: LOUIS G. BRITT, M.D., Memphis

"Traumatic Rupture of the Diaphragm due to Indirect Violence"

By: ROBERT W. NEWMAN, M.D., Knoxville

4:30 P.M.

Business Meeting

Tennessee Chapter, American College of Surgeons

**BANQUET AND ENTERTAINMENT
EVENING PROGRAM**

**Continental Ballroom
Sheraton-Peabody Hotel**

6:15 P.M.

SOCIAL HOUR

7:00 P.M.

DINNER

Entertainment: "THE SINGING DOCTORS" — Greene County Medical Society, Springfield, Missouri

TMA members are especially invited. Tickets (\$6.00). Tickets can be purchased at the registration desk.

Members of the Tennessee Medical Association and guests are invited to the Social Hour and Banquet. The "Singing Doctors" are widely known for their recordings, their latest being a hilarious album and the fourth in the popular "Medical Hit Parade" Series. You are urged to attend. PLEASE PURCHASE YOUR TICKETS EARLY IN ORDER TO SECURE RESERVATIONS.

**TENNESSEE OBSTETRICAL AND
GYNECOLOGICAL SOCIETY**

Holiday Inn-Rivermont

FRIDAY, APRIL 14, 1967

12:00 Noon

Luncheon

Business Meeting

SCIENTIFIC PROGRAM

President's Address

"Ovarian Function after Hysterectomy as Evaluated by Colpocytochrome"

By: WILLIAM F. MACKEY, M.D., President
JAMES R. REINBERGER, M.D., Memphis

"Liver Scanning in Genital Malignancies"

By: M. GAYNOR HOWELL, JR., M.D., Department of Obstetrics and Gynecology, University of Tennessee Memorial Hospital and Research Center, Knoxville

"Appendectomy Incidental to Cesarean Section and Tubal Ligation"

By: GERALD JONES, M.D., Department of Obstetrics and Gynecology, Baroness Erlanger Hospital, Chattanooga

"Sheehan's Syndrome Associated with Eclampsia and a Small Sella Turcica"

By: ROBERT S. HARLIN, M.D., Department of Obstetrics and Gynecology, City of Memphis Hospitals and the University of Tennessee, Memphis

TENNESSEE THORACIC SOCIETY

Room 215 Sheraton-Peabody Hotel

FRIDAY, APRIL 14, 1967

Joint Meeting with the
**TENNESSEE CHAPTER—AMERICAN COLLEGE
 OF CHEST PHYSICIANS**

12:00 Noon

Luncheon

1:00 P.M.

Business Meeting

1:15 P.M.

SCIENTIFIC PROGRAM**SYMPOSIUM: "Etiologies of Primary Atypical Pneumonia"**

Moderator: GENE H. STOLLERMAN, M.D., Professor
 of Medicine, Chairman of Department
 of Medicine, University of Tennessee
 College of Medicine, Memphis

TOPICS

1. **"Viral Etiologies"** by MICHAEL W. RYTEL, Assistant Professor of Medicine, Department of Medicine, University of Tennessee College of Medicine, Memphis (20 minutes)
2. **"Mycoplasma Etiologies"** by JOHN P. GRIFFIN, M.D., Assistant Professor of Medicine, Department of Medicine, University of Tennessee College of Medicine, Memphis (20 minutes)

Discussion and Questions
 (20 minutes)

2:15 P.M.

"Medical Lessons from Man-In-The-Sea"

GUEST SPEAKER: Commander T. RICHTER, MC,
 Department of the Navy, Bureau
 of Medicine and Surgery

During this presentation the Sealab II film will
 be shown.

(Courtesy of the Tennessee Tuberculosis and
 Health Association)

3:00 P.M.

Adjourn to Visit Exhibits

**TENNESSEE STATE
 ORTHOPAEDIC SOCIETY**

Room 200 Sheraton-Peabody Hotel

FRIDAY, APRIL 14, 1967**SCIENTIFIC PROGRAM**

1:00 P.M.

"Socio-Economic Factors Involved in 100 Consecutive Laminectomies"

By: DENNIS COUGHLIN, M.D., Knoxville

1:20 P.M.

(Discussion)

1:30 P.M.

"Lateral Spine Fusion: Preliminary Report"

By: E. B. WILKINSON, JR., M.D., Memphis

1:50 P.M.

(Discussion)

2:00 P.M.

"Orthopaedics Overseas Program in Nigeria"

By: MERRITT B. SHOBE, M.D., Kingsport

2:20 P.M.

(Discussion)

2:30 P.M.

"Orthopaedic Aspects of the Care of Patients with Stroke"

By: VERNON L. NICKEL, M.D., Downey, California

3:00 P.M.

Intermission to Visit Exhibits

3:45 P.M.

"The Use of Vitallium Femoral Condylar Replacement Prosthesis in Rheumatoid and Osteoarthritic Joints"

By: E. M. LUNCEFORD, JR., M.D., Columbia, S. C.
 (By Invitation)

4:05 P.M.

(Discussion)

4:15 P.M.

"Synovectomy and Debridement of the Knee in Rheumatoid Arthritis"

By: VERNON L. NICKEL, M.D., Downey, Calif.

4:45 P.M.

Adjourn

**TENNESSEE ACADEMY OF
 OPHTHALMOLOGY**

Louis XVI Room Sheraton-Peabody Hotel

FRIDAY, APRIL 14, 1967

12:00 Noon

LUNCHEON AND PANEL DISCUSSION

Panelists: MARSHALL M. PARKS, M.D., Washington,
 D. C.

PHILIP M. LEWIS, M.D., Memphis

JAMES H. ELLIOTT, M.D., Nashville

1:15 P.M.

Business Meeting**SCIENTIFIC PROGRAM**

1:55 P.M.

Meeting Called to Order

By: FRED A. ROWE, M.D., President

2:00 P.M.

"Giant Cell Arteritis"

By: JOHN W. WOOD, M.D., LEE R. MINTON, M.D.,
 and JAMES H. ELLIOTT, M.D., Nashville

2:15 P.M.

GUEST SPEAKER

Marshall M. Parks, M.D., Washington, D. C.

Subject: **"Basic Principles in Surgical Treatment
 of Strabismus"**

2:45 P.M.

Intermission to Visit Exhibits

3:00 P.M.

"Simplified Retinal Localization Chart"

By: JERRE M. FREEMAN, M.D., Memphis

3:15 P.M.

"Cogan's Microcystic Corneal Epithelial Dystrophy"By: JOHN MCMAHAN, M.D., ROBERT NEVINS, M.D.,
and JAMES H. ELLIOTT, M.D., Nashville**CASE REPORTS**

3:30 P.M.

"An Unusual Case of Ocular Pain"

By: ROLAND H. MYERS, M.D., Memphis

3:45 P.M.

"Acute Non-Granulomatous Iritis Associated with Pulmonary Granulomatous Disease"

By: JOSEPH W. WAHL, M.D., Nashville

4:00 P.M.

"Neuromyelitis Optica"

By: L. ROWE DRIVER, M.D., Nashville

4:15 P.M.

"A Complication of Strong Miotics in the Treatment of Narrow Angle Glaucoma"

By: BEN F. HOUSE, M.D., Jackson



TENNESSEE ACADEMY OF OTOLARYNGOLOGY

Louis XVI Room Sheraton-Peabody Hotel

FRIDAY, APRIL 14, 1967

12:00 Noon

LUNCHEON AND BUSINESS MEETING

(Joint luncheon of both sections of the Tennessee Academy of Ophthalmology and Otolaryngology. Following a business meeting, the scientific program for the ENT Section will begin at 2:00 P.M. in Room 314)

SCIENTIFIC PROGRAM

Room 314 Sheraton-Peabody Hotel

2:00 P.M.

"Management of Facial Nerve Palsy"

By: EDGAR R. FRANKLIN, M.D., and EDWIN N. RISE, M.D., Memphis

2:20 P.M.

"Management of a Tumor in a Newborn Infant"

By: HERBERT DUNCAN, M.D., Nashville

2:35 P.M.

"Catarrhal Drain Tubes in Secretory Otitis—New Developments"

By: (To be announced)

Overall Discussion

3:00 P.M.

"The Recognition and Management of the Allergic Patient"

By: (To be announced)

Discussion—By: LAURENCE L. COHEN, M.D., Memphis

General Discussion

3:30 P.M.

Coffee Break

3:40 P.M.

"Teflon Paste Injection for Correction of Velopharyngeal Insufficiency"—16 mm color movie with sound

By: PAUL H. WARD, M.D., Nashville, Resident Staff at Vanderbilt University

Discussion—By: MCCARTHY DEMERE, M.D., Memphis

EDWIN N. RISE, M.D., Memphis

General Discussion

4:10 P.M.

"The Lateral Pharyngotomy Approach for Tumors at the Base of the Tongue"

By: PAUL H. WARD, M.D., Nashville, Resident Staff at Vanderbilt University

Discussion—By: EDWIN W. COCKE, M.D., Memphis

4:30 P.M.

"The Newer Antibiotic Agents—Advantages and Disadvantages"

By: (To be announced)

General Discussion

5:00 P.M.

Cocktails

(Location to be announced)

TENNESSEE DISTRICT BRANCH— AMERICAN PSYCHIATRIC ASSOCIATION

FRIDAY, APRIL 14, 1967

12:00 Noon

LUNCHEON

Georgian Room Sheraton-Peabody Hotel

1:00 P.M.—Review Exhibits

SCIENTIFIC PROGRAM

Georgian Room Sheraton-Peabody Hotel

1:30 P.M.

"Consideration of the Paranoid Problem in Psychiatric Practice"

By: KENNETH J. MUNDEN, M.D., Director, Out-patient Dept., Tennessee Psychiatric Institute, Assistant Professor of Psychiatry, University of Tennessee College of Medicine, Memphis

2:15 P. M.

Discussion—By: JAMES E. HASSELLE, M.D., Department of Psychiatry, University of Tennessee College of Medicine, Memphis

2:30 P.M.

"Psychomotor Seizures, Psychoneurosis, and the Limbic System"—A discussion of these disorders originating in structural disease of the temporal lobes.

By: ROBERT A. UTTERBACK, M.D., Professor of Neurology and Director of the Department of Neurology, University of Tennessee College of Medicine, Memphis

3:15 P.M.

Discussion—By: PHINEAS J. SPARER, M.D., Professor of Psychiatry and Preventive Medicine, University of Tennessee College of Medicine, Memphis

3:30 P.M.

Intermission—Visit Exhibits

3:40 P.M.

Business Meeting

EVENING PROGRAM

SOCIAL HOUR (By Reservation) Summit Club

7:30 P.M.

BANQUET (By Reservation) Summit Club



TENNESSEE NEUROSURGICAL SOCIETY

Room 214 Sheraton-Peabody Hotel

FRIDAY, APRIL 14, 1967

SCIENTIFIC PROGRAM

2:00 P.M.

"Acoustic Neuromas"

By: FRANK J. OTENASEK, M.D., The Johns Hopkins Medical School, Baltimore, Maryland
(General discussion by the members will follow)

3:45 P.M.

Business Meeting

Following the business meeting, members are urged to visit the exhibits.



TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS

FRIDAY EVENING, APRIL 14, 1967

Georgian Room Sheraton-Peabody Hotel

6:00 P.M.

COCKTAILS

7:30 P.M.

BANQUET—Doctors and Wives

Saturday, April 15, 1967

IMPACT BREAKFAST

7:15 A.M.

SHERATON-PEABODY HOTEL
(VENETIAN ROOM)

1:00 P.M.

House of Delegates
Georgian Room, Sheraton-Peabody
Hotel—Memphis

MORNING**General Scientific Program**

9:00 A.M.

Presiding: B. K. HIBBETT, III, M.D., Nashville,
Vice President, TMA

PANEL DISCUSSION—"Contraception"

Moderator: SAM P. PATTERSON, M.D., Department of Obstetrics & Gynecology, University of Tennessee College of Medicine, Memphis

Panelists: STEWART A. FISH, M.D., Professor and Chairman, Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis

ROBERT L. CHALFANT, M.D., Specialist in Obstetrics and Gynecology, Nashville

W. POWELL HUTCHERSON, Specialist in Obstetrics and Gynecology, Chattanooga

10:00 A.M.

Intermission—Visit Exhibits

10:30 A.M.

"Projection of Changes in the Future of Medical Practice"

By: BLAND W. CANNON, M.D., Neurosurgeon, Memphis, Member of the Council on Medical Education of the American Medical Association

11:00 A.M.

"The Physician in Society"

By: CHARLES L. HUDSON, M.D., Cleveland, Ohio, President, American Medical Association, Dip-

lomite American Board of Internal Medicine, Fellow American College of Physicians, and a member of the American Federation for Clinical Research



SPECIALTY SOCIETIES

AFTERNOON



TENNESSEE SOCIETY OF PATHOLOGISTS

Room 215 Sheraton-Peabody Hotel

SATURDAY, APRIL 15, 1967

12:00 Noon

Dutch Treat Luncheon

SCIENTIFIC PROGRAM

1:00 P.M.

"The Acid Base Ratio"

By: ELGIN P. KINTNER, M.D., Maryville

1:25 P.M.

"Pulmonary Sporotrichosis"

By: TERRY CRUTHIRDS, M.D., Memphis

1:40 P.M.

"Suicides, a Study in Technique"

By: JERRY T. FRANCISCO, M.D., Memphis

2:05 P.M.

"Immunofluorescent Aspects of Goodpasture Syndrome"

By: D. J. KROE, M.D., and JAMES A. PITCOCK, M.D., Memphis

2:35 P.M.

"Evaluation of Pregnancy Testing"

By: A. PETER INCLAN, M.D., and JACK RICHMOND, M.D., Memphis

2:50 P.M.

Intermission To Visit Exhibits

3:00 P.M.

"Experience in Renin and Angiotensin Assay"

By: E. ERIC MUIRHEAD, M.D., and BYRON E. LEACH, Ph.D., Memphis

3:25 P.M.

MOVIE: "In The Medical Laboratory"

(The first showing of a Technologist Recruitment Film)

4:00 P.M.

Business Meeting

TENNESSEE RADIOLOGICAL SOCIETY

SATURDAY, APRIL 15, 1967

12:00 Noon

LUNCHEON

Room 200

Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

1:00 P.M.

"Selective Double and Triple Contrast Studies of the G.I. Tract (using barium spray and pneumoperitoneum)"

By: EDWARD BUONOCORE, M.D., Chairman, Department of Radiology, University of Tennessee Research Hospital, Knoxville

"Intravenous Pyelograms in Multiple Myeloma"

By: VERNON A. VIX, M.D., Associate Professor of Radiology and Chairman of the Radiology Service, Veterans Administration Hospital, Nashville

"Time-Dose Relationships in Radiotherapy"

By: WILLIAM L. CALDWELL, M.D., Associate Professor of Radiology and Director of Radiotherapy and Radiation Research, Vanderbilt University School of Medicine, Nashville

"Voiding Cystourethrography"

By: WILLIAM E. LONG, M.D., Department of Radiology, LeBonheur Children's Hospital, Memphis

"Radiographic Findings of Acquired Idiopathic Dysgammaglobulinemia"

By: JERRY W. GRISE, M.D., Department of Radiology, Crittendon Memorial Hospital, West Memphis, Arkansas

"Radiographic Aspects of Intrauterine Transfusions"

By: WEBSTER W. RIGGS, M.D., Assistant Professor Department of Radiology, Diagnostic Section, University of Tennessee College of Medicine, Memphis

3:00 P.M.

Intermission—Visit Exhibits

3:30 P.M.

Business Meeting

TENNESSEE DIABETES ASSOCIATION

Louis XVI Room

Sheraton-Peabody Hotel

SATURDAY, APRIL 15, 1967

12:00 Noon

Luncheon

Members and Guests

SCIENTIFIC PROGRAM

1:30 P.M.

"Continuing Advances in Insulin Therapy"

By: WILLIAM R. KIRTLEY, M.D., Director Medical Research Division, Eli Lilly Company, Professor, Indiana University School of Medicine, Indianapolis, Indiana

2:00 P.M.

"The Use of the Insulin Assays in the Evaluation of Hypoglycemic States"

By: OSCAR B. CROFFORD, M.D., Assistant Professor of Medicine and Physiology, Vanderbilt University School of Medicine, Nashville

2:30 P.M.

Intermission—Visit Exhibits

3:00 P.M.

"Recent Research in Diabetes Mellitus"

By: THOMAS P. SHARKEY, M.D., Past President, American Diabetes Association; Professor, Clinical Medicine, Ohio University, Dayton, Ohio

3:30 P.M.

Clinical Pathological Conference with clinical discussion by DRS. SHARKEY, CROFFORD, and KIRTLEY

Business Meeting (Members only)

To follow scientific session

TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS

SATURDAY, APRIL 15, 1967

Room 216

Sheraton-Peabody Hotel

12:00 Noon

Luncheon**SCIENTIFIC PROGRAM**

1:00 P.M.

(Joint Meeting with Tennessee Pediatric Society)

"Reactions to Drugs, Their Relation to Growth and Development"

By: HARRY C. SHIRKEY, M.D., Director, The Children's Hospital, Birmingham, Alabama, and Visiting Professor of Pediatrics at the Kaulaolani Children's Hospital, Honolulu, Hawaii

2:00 P.M.

"The Pharmacological Aspects of Pediatric Anesthesia"

By: CHARLES PITTINGER, M.D., Nashville, Professor, Department of Anesthesiology, Vanderbilt University School of Medicine

3:00 P.M.

Business Meeting**TENNESSEE PEDIATRIC SOCIETY**

SATURDAY, APRIL 15, 1967

Room 214

Sheraton-Peabody Hotel

12:00 Noon

Luncheon and Business Meeting

1:00 P.M.

Room 216

Scientific Meeting

(Joint meeting with Tennessee State Society of Anesthesiologists)

The answer may be yes... if they're not on Hygroton. For instance, a therapeutic dose of a short-acting diuretic may cost 3 times as much as an equivalent dose of Hygroton. With Hygroton, in fact, you can usually do the job with just one tablet a day or one every other day. It's no wonder that the trend has been away from short-acting, multiple-dose, high-cost diuretics.

You may hear that a short-acting diuretic was more effective in a 400 mg. (ten-tablet) dose than Hygroton in a 200 mg. (two-tablet) dose.

If one considers maximum recommended doses for each product, tablet for tablet Hygroton was clearly superior. Two tablets of Hygroton were found to produce almost 40% more natruresis and 20% more weight loss than five tablets of the other diuretic.* Note that these are maximum recommended doses!

For effectiveness, economy, and convenience, therefore, Hygroton is the diuretic to choose to start with and the one to stay with.

*Brest, A. N., et al.: J. New Drugs 5:329, 1965.



Natruresis above control values after maximum recommended doses (mEq./24 hours) in "normal" patients

111
5 tablets short-acting
nonthiazide diuretic

152
2 tablets
Hygroton

48-hour weight loss after maximum recommended doses in edematous patients with congestive heart failure due to arteriosclerotic or rheumatic heart disease

1.84 lbs.
5 tablets short-acting
nonthiazide diuretic

2.2 lbs.
2 tablets
Hygroton

Indications: Hypertension and many types of edema involving retention of salt and water.

Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.

Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease; and in patients receiving corticosteroids, ACTH,

or digitalis. Salt restriction is not recommended.

Side Effects: Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.

Availability: Tablets of 100 mg. in bottles of 100 and 1000. For full details, see the complete prescribing information. 6524-V(B)

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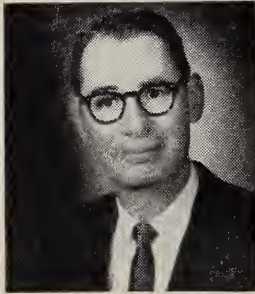
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Geigy Pharmaceuticals
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President's Page

"Singing The Blues"



DR. HUBBARD

One of the major issues that will be confronting the House of Delegates at its annual session in April, concerns the matter of whether or not the Tennessee Medical Association should officially take action to sponsor a Blue Shield Plan in Tennessee.

The House of Delegates in April, 1966, by resolution, acted to discontinue the Tennessee Plan and established the date of May 1, 1967, as the deadline for all previous Tennessee Plan policies to be terminated, as well as physician participating agreements. These have been in the process of being phased out during the past twelve months.

The House of Delegates in April, 1966, also passed a resolution whereby in dealing with a third party on any matter involving fees, that consideration should only be given to usual and customary fees as payments for all physicians' services. Also, in the meeting of the House of Delegates in 1966, the Health Insurance Committee of TMA was directed to investigate, develop and pursue programs or plans for presentation to the House of Delegates in 1967.

On January 22, 1967, a meeting was conducted between the TMA Board of Trustees and Health Insurance Committee, with members of the Medical Policy Committee and Executive Staff of the Tennessee Hospital Service Association. This meeting was held in Nashville. Its purpose was to try and improve the rapport between the Tennessee Medical Association and the Tennessee Hospital Service Association, the meeting being requested by THSA's Medical Policy Committee. At this meeting it was my impression that the Tennessee Hospital Service Association was interested in attempting to have the Tennessee Medical Association sponsor a Blue Shield Plan in the state.

The physicians of Tennessee have always favored free enterprise without federal interference. Private insurance companies fit into this category and have stood by us in our efforts to steer away from federal domination. Now, are we deserting private enterprise if we as an Association determine to sponsor a Blue Shield plan? Does medicine desire and feel an obligation to support private insurance companies? This is a question that the House of Delegates, in their wisdom, should consider before agreeing to sponsor any kind of program or plan.

In the event that the House determines for the Association to sponsor a Blue Shield plan, it is my hope that an agreement can be reached on the following provisions: (1) Any plan considered should contain coverage equal to Medicare. (2) Any plan considered should be on an indemnity basis—not a service plan. (3) Usual and customary fees should be the only consideration given for payment to physicians for their services and without an established ceiling on payments. (4) Profiles for physicians' fees should not be submitted to any carrier. (5) Any proposed plans should encompass all physicians, which includes hospital based specialists. (6) There should be a distinct separation of Blue Cross and Blue Shield, each with a separate executive board. (7) The majority of such a Board or committee should be physicians and in matters pertaining solely to the practice of medicine, the medical members should possess and exercise voting rights and privileges. (8) Where and if a Blue Shield plan acts as a carrier or intermediary for any state or federal program, the medical board or committee members should have the power of approval on all matters pertaining to physicians' services and payments.

Sincerely yours,

President

THE JOURNAL

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-4211, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn.

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ADDISON B. SCOVILLE, Nashville

MARCH, 1967

EDITORIAL

THE SECOND TENNESSEE CONGRESS ON MENTAL ILLNESS AND HEALTH

The Congress convened in Nashville on October 12 and 13, 1966, designed, as indicated in the program, to bring together as many persons as possible in our State for the discussion of mutual problems in the broad field of mental illness and health.

To stimulate attendance, a program was developed that would be educational in a number of current areas of need that require much new knowledge and understanding by those upon whose shoulders will fall the responsibility of implementation and planning.

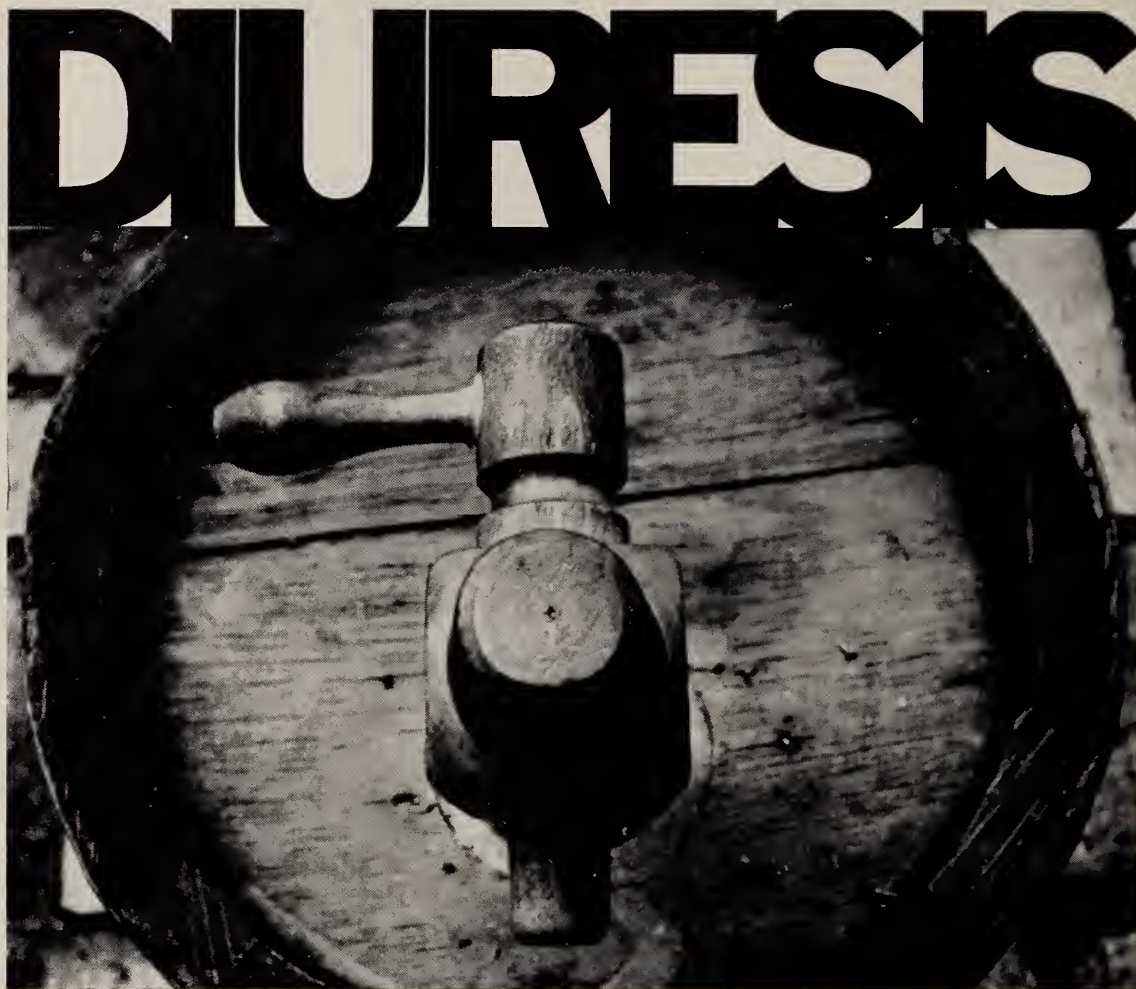
There is a need for physicians to know more about mental illness, and the interrelationships between physical disease and the emotional structure of those who become sick. In order to treat the large numbers of patients with mental problems, they must be aware of the role of other workers in the field and be able to utilize their assets and skills. For this reason, representatives of all the mental health disciplines were in-

cluded in the various forums which made up the body of the two-day program.

A review of the topics shows the wide range of subjects that need our interest, dedication and thoughtful support. They were:—suicide prevention; physical illnesses commonly associated with emotional factors; problems in adolescents and in school age children; education of the physician in recognizing and treating the emotionally disturbed; utilization of other mental health disciplines in treatment of the mentally ill; organization of a comprehensive mental health center; religion and health; the law and mental health; family mental health; sex education; and the mildly retarded. A final panel on drugs was focussed on two of our most pressing health problems, that of narcotics and alcohol.

The Planning Committee was pleased with the attendance, which totalled 461 registrants. It is believed there were many who attended but did not register. An analysis of the types of persons in attendance was interesting and heartening. There were 97 physicians; 31 ministers; 61 nurses; 31 from educational fields; 36 psychiatric hospital workers; and 17 from the area of rehabilitation such as Outlook, Vocational Rehabilitation, etc. Ten mental health centers were represented, 8 health departments, 16 psychologists, 14 welfare departments, and 39 members of mental health associations. We were confident that this designation of members of mental health associations was not representative of the total participation of this group. Many of the participants in the program were undoubtedly members of mental health associations, but did not designate such a relationship. There were representatives of smaller groups, but their presence gave evidence of interest in the field. Some of these were from health departments, American Red Cross, attorneys, county judges, ministers, health services, pharmaceutical representatives, and 25 who were unclassified.

Governor Frank Clement, in his address that served as the "kick-off" for the Congress, gave a brilliant report of the progress in the field of mental health during his administrations. His address revealed remarkable insight and great understanding of the dynamics of the problem, as well as



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Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"¹ established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in 1/3 the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell² has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice* 1966-1967, p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

the needs. He gave a hopeful forecast for the future in this the largest health problem of the Nation.

Dr. Charles Hudson, President of the American Medical Association, addressed those in attendance at the banquet, with a presentation that revealed the continuing concern of the AMA and pointed out the need for clarification and simplification of existing knowledge and techniques.

Tennessee's Commissioner of Mental Health, Dr. Nat Winston, filled the role of master of ceremonies at the banquet, with consummate skill and delightful blending of his musical talents with the major problems at hand and their more serious import. We were all happy that he brought as his guest Mr. Earl Scruggs of five-string banjo fame.

On the program were 18 speakers with records of significant achievement in mental health activities representing the major disciplines:—physicians, clinical psychologists, social workers and ministers. Of outstanding importance is the fact that there were 81 participants as resource speakers and discussants from Nashville, Memphis, Knoxville, Chattanooga, and a number of other cities. The broad representation of key organizations and associations at the opening session gave satisfying evidence of the widespread interest in this endeavor.

Special recognition must go to the many committees on planning, program, arrangements, publicity, finances, secretariat, invitations and registration, and back of it all, the vision of the supporting organizations, the Tennessee Medical Association, Tennessee Mental Health Association, and the Woman's Auxiliary, for their generous financial support, as well as the unanimous recognition of the need for such a Congress and genuine encouragement.

Frank H. Luton, M.D.
Chairman, TMA Committee
on Mental Health

IN MEMORIAM

Easley, Albert S., Chattanooga. Died 16 January, 1967, Aged 53. Graduate of Louisiana State University School of Medicine, New Orleans, 1941. Member of the Chattanooga-Hamilton County Medical Society.

Tuttle, Arliss H., Memphis. Died 18 January, 1967, Aged 44. Graduate of University of Tennessee College of Medicine, 1949. Member of the Memphis-Shelby County Medical Society.

Foote, Robert Miller, Nashville. Died 19 January, 1967, Aged 51. Graduate of Vanderbilt University School of Medicine, 1941. Member of the Nashville Academy of Medicine.

Boals, John O., Memphis. Died 20 January, 1967, Aged 80. Graduate of Memphis Hospital Medical College, 1909. Member of Memphis-Shelby County Medical Society, 1946-52.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

A film on air pollution, the first of three to be produced by Dr. Murdock Head, Professor of forensic medicine at George Washington University in Washington, was shown to members of the House of Delegates of the Chattanooga and Hamilton County Medical Society and local business leaders on January 12th. The presentation was arranged by Dr. L. Spires Whitaker, thoracic surgeon who has an intense interest in solving the community's pollution problems, and Robert L. Collins who is chairman of the Northeast Hamilton County Air Pollution Control Committee.

Dr. Hoyt B. Gardner, Louisville, Kentucky, Member of the American Medical Association Political Action Committee, was the guest speaker at a dinner meeting of the Society on February 7th. Dr. Gardner's subject was "Medical Practice and Politics."

TMA Nominating Committee

A nine-man nominating committee to select a slate of officers for the Tennessee Medical Association for 1967 was selected by the Association's Board of Trustees on January 14th. The Nominating Committee will hold its first meeting at the TMA Annual Meeting in Memphis on Thursday, April 13th. At that time a Chairman will be elected. Members of the Committee are:

EAST TENNESSEE: Dr. John H. Saffold, Knoxville; Dr. George G. Young, Chattanooga; and Dr. E. L. Caudill, Jr., Erwin.

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Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

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AMES

MIDDLE TENNESSEE: Dr. Chas. C. Tra-bue, IV, Nashville; Dr. John O. Williams, Mt. Pleasant; and Dr. Wm. A. Hensley, Cookeville.

WEST TENNESSEE: Dr. Harold B. Boyd, Memphis; Dr. Charles N. Hickman, Bells; and Dr. Byron O. Garner, Union City.

Any county medical society desiring to place the name of a physician in nomination for an office of the TMA is requested to contact its representatives on the Committee.

NATIONAL NEWS

The Month In Washington

(From the Washington Office, AMA)

The Johnson administration's health legislation program this year includes proposals to expand medicare and limit medicaid, and more money is being requested for most federal activities in the health field.

President Johnson also has asked Congress for anti-air pollution legislation and stricter anti-water measures.

The President termed medicare "an unqualified success," but added "there are improvements which can be made and shortcomings which need prompt attention." He proposed that the 1.5 million disabled persons receiving other Social Security and railroad retirement benefits also be included under medicare. He said "certain types of podiatry" should be included in medicare benefits. He further directed the Secretary of Health, Education and Welfare "to undertake immediately a comprehensive study of the problems of including drugs under medicare."

Johnson noted that only 415,000, less than half of the 850,000 total, of nursing home beds in the nation met federal standards and that only 3,000 of the total of 20,000 nursing homes had qualified under medicare. To move toward correcting this situation, he wants more money for more health facilities and better health care institutions for the aged.

The President called for extension of existing legislation to improve state and local health planning for the elderly and to launch special pilot projects to bring com-

prehensive medical and rehabilitation services to the aged.

As for limiting medicaid (Title XIX of Social Security), Johnson said that a state should not be permitted to have its income ceilings for medical assistance more than 50 percent higher than the level set for welfare assistance. The medicaid program, which now gives states carte blanche as to income standards, became the subject of widespread controversy after New York set an eligibility standard of \$6,000 net income for a family of four.

Twenty-eight states and jurisdictions had medicaid programs by January 1, 1967, and it is estimated that 30 will have them by July 1, 1967, and 48 by July, 1968. Title XIX programs replace the medical vendor payment part of existing federal-state welfare programs, including Kerr-Mills.

The administration's fiscal 1968 budget calls for general fund expenditures of \$11.7 billion for carrying out existing and proposed new programs of the Department of Health, Education and Welfare (HEW). This is an increase of \$1.0 billion over current year spending. In addition to the general fund outlays on behalf of HEW, the budget forecasts benefit payment and administrative expenditures in 1968 from Social Security trust funds in the amount of \$31.0 billion, an increase of \$5.5 billion over 1967. Health program highlights of the HEW budget include:

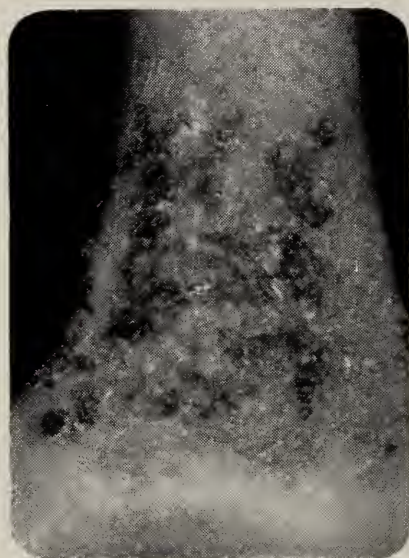
—A 5 percent increase, to \$1.45 billion, for medical research.

(Dollars in Millions)

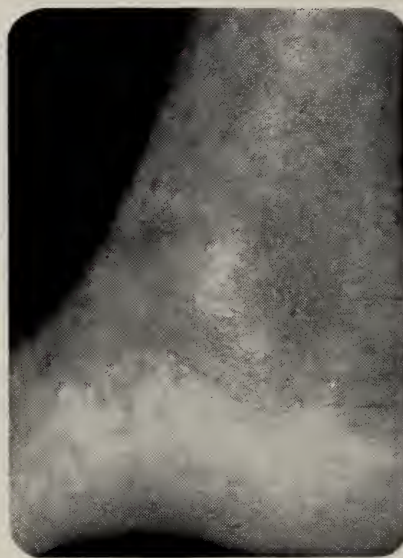
	1967	1968
—Food and Drug Administration . . .	\$64	\$68

The \$4 million increase will be used to: (1) expedite the review and surveillance of new drugs for safety and efficacy, (2) expand extramural research into the side effects of oral contraceptives, (3) expand the program established under last year's Drug Abuse Control Amendments, and (4) carry out the new Fair Packaging and Labeling Act. The 1968 budget will also emphasize regulation of barbiturates, amphetamines, and other drugs affecting the central nervous system, and a step-up in FDA's food standards program.

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Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side

effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive non-permeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyoderma will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

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—Regional Medical Programs—\$16 million.

It is expected that grants will be awarded to regional groups in 1968 primarily to support a rapid expansion throughout the nation of operational activities begun during 1967, and an expansion and supplementation of planning activities begun in 1966. Emphasis will be on regional planning and coordination of medical resources, continuing education for doctors and other medical personnel, and the rapid distribution of new knowledge and techniques.

The total Children's Bureau budget request for fiscal year 1968 is almost \$246 million, an increase of about 5 percent or about \$11 million over 1967. The largest share of the approximately \$11 million increase is \$5 million additional for special project grants for health of school and pre-school children.

★

The Army and Navy will draft 2,118 medical doctors and 111 osteopaths starting in July. The Defense Department said Selective Service was requested to provide the doctors because an insufficient number had volunteered to be able to replace men leaving service after two years' active duty. The Air Force is meeting its need and will not participate in the summer draft call. Of the 2,229 doctors to be drafted, 1,537 will go on duty in the Army and 692 in the Navy. Last April, the Armed Forces issued new regulations under which doctors of osteopathy who volunteered for service could be commissioned. The Pentagon said fewer than a dozen had volunteered, however.

★

New clinical studies are being permitted with DMSO (Dimethyl sulfoxide) under guidelines established to provide the maximum protection possible for patients receiving the drug. Dr. James L. Goddard, Commissioner of Food and Drugs said: "A comprehensive evaluation of all data available to us on DMSO has been completed. Indications that the drug may be of value in treating certain conditions justify further clinical investigations." He warned, however, that these trials must be carefully planned and controlled. "Serious toxic signs are observed in animals used in DMSO experiments. Since these effects vary con-

siderably among different species, it is possible that the drug could be less toxic in humans. But this cannot be taken for granted. Occurrences of eye changes in DMSO-treated animals led the Food and Drug Administration to suspend clinical trials with the drug a year ago.

MEDICAL NEWS IN TENNESSEE

16th Annual Heart Symposium

Three of the nation's outstanding heart specialists were featured speakers at the 16th Annual Heart Symposium, held January 28th in the auditorium of the Siskin Memorial Foundation, Chattanooga. They were: Dr. S. Gilbert Blount, Jr., professor of medicine and head of the division of cardiology, University of Colorado Medical Center, Denver; Dr. J. Francis Dammann, Jr., professor of surgical cardiology and pediatrics, University of Virginia Medical Center, Charlottesville; and Dr. Dwight C. McGoon, consultant, surgical section, Mayo Clinic, and assistant professor of surgery, Mayo Graduate School, University of Minnesota, Rochester.

The symposium is sponsored by the Chattanooga Area Heart Association, the Heart Disease Control Program, Tennessee Department of Public Health, and the Chattanooga-Hamilton County Medical Society. Dr. Jesse E. Adams, Chattanooga, was chairman of the Committee on Arrangements with Dr. Robert L. Allen of Cleveland serving as co-chairman.

Mid-South Postgraduate Medical Assembly

The 78th annual meeting of the Mid-South Postgraduate Medical Assembly was held February 15-17 at the Sheraton-Peabody Hotel in Memphis. Speakers included: Dr. Hilger P. Jenkins, Chicago; Dr. C. Thorpe Ray, Columbia, professor and chairman, department of medicine, University of Missouri; Dr. Evalyn S. Gendel, assistant director, maternal and child health division, Kansas State Department of Health, Topeka; Dr. Robert R. Linton, clinical professor of surgery, Harvard University, Brookline; Dr.

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Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

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The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. **Contraindications:** Comatose states or the presence of large amounts of C.N.S. depressants. **Precautions:** Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. **Side Effects:** Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with

I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

Smith Kline & French Laboratories 

Stuart S. Roberts, associate professor of surgery, University of Illinois College of Medicine, Chicago; Dr. Robert D. Lange, research professor, University of Tennessee Memorial Research Center, Knoxville; Dr. Wilhelm Raab, Emeritus Professor of Experimental Medicine, University of Vermont, College of Medicine, Burlington; Dr. John S. Strauss, professor of dermatology, Boston University School of Medicine, Boston; Dr. Thomas W. McElin, M.D., assistant professor of obstetrics and gynecology, Northwestern University Medical School, Chicago; Dr. Robert A. Ross, professor of obstetrics and gynecology, University of North Carolina, Chapel Hill; Dr. Oscar P. Hampton, Jr., chairman, Committee of Trauma, American College of Surgeons, St. Louis; Dr. Robert A. Ulstrom, professor and chairman, department of pediatrics, U.C.L.A. School of Medicine, Los Angeles; Dr. Robert H. Usher, director, neonatal research, Royal Victoria Hospital, Montreal, Canada; Dr. Denton A. Cooley, professor of surgery, Baylor University College of Medicine, Houston; and Dr. Ian Murchie Thompson, professor and chairman, section of urology, University of Missouri School of Medicine, Columbus.

University of Tennessee College of Medicine

A third term student has been selected to receive one of the top awards made in academic medicine. Alpha O. Newberry, III, will receive a \$17,200 fellowship from the Life Insurance Medical Research Fund. The fellowship will begin July 1.

Mr. Newberry, 26, was selected from among applications of students of medical schools throughout the nation. The award is for support of his studies at U.T. Medical Units toward both the M.D. and Ph.D. degrees in academic and research medicine and is made annually on the basis of academic achievement and potential in medical science. Applicants are nominated by their medical schools and must have a strong undergraduate as well as first year medical school scientific background and be committed to a career in both academic and research medicine. Students selected for the award are known as Fellows of the Life Insurance Medical Research Fund.

Mr. Newberry will interrupt his medical school studies at the end of this term to begin work in the U.T. Graduate School-Medical Sciences toward the Ph.D. degree in biochemistry. He will work with Dr. Nathan Sloane, professor of biochemistry, who encouraged him to apply for the award and who will act as his faculty advisor, doing research in amino acids (protein chemistry).



A faculty member at the Medical Units has been awarded a contract to conduct a long-range study on cholera for the United States Army. A first year's grant of \$35,000 has been allocated. Recipient of the grant is Dr. Bob A. Freeman, professor of microbiology in the School of Basic Medical Sciences. The contract began February 7th and the study is expected to be a five-year project with renewal grants of approximately \$20-25,000 annually.



Newly elected College of Medicine faculty officers for 1967 are: Dr. L. W. Diggs, president, succeeding Dr. I. Frank Tullis; Dr. Sam Patterson, vice-president; and Dr. Jerry Francisco, secretary.



Two members of the "renal study group" have received research awards from the Tennessee Heart Association. Dr. Sylvia Azar is the recipient of a \$4,000 one-year award and Dr. B. J. Kelley is recipient of a one-year \$6,500 fellowship. Title of the project is "Mechanism of the Anemia of Chronic Renal Insufficiency" and is sponsored by Dr. Fred Hatch.

Vanderbilt University School of Medicine

Dr. Joseph Weinreb, renowned child psychiatrist who helped found the American Academy of Child Psychiatry, has been named associate professor of psychiatry. Dr. Weinreb, formerly director of the Worcester, Mass., Youth Guidance Center, is certified as a specialist in psychiatry and in the subspecialty of child psychiatry by the American Board of Neurology and Psychiatry.

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St. Jude Children's Research Hospital

Dr. Thomas R. Walters, director of the hematology service and assistant professor of pediatrics, University of Kansas School of Medicine, will join the staff of St. Jude as Chief of Hematology and will also serve as associate professor of pediatrics at the University of Tennessee Medical Units in Memphis.

A University of Illinois pediatrics instructor, Dr. Joseph Simone, will also join the staff next summer as Chief of the hospital's Blood Bank and assistant professor of pediatrics at U.T.

Meharry Medical College

Dr. Robert S. Rhodes, instructor-trainee in pathology is the recipient of a \$10,620 federal grant for continued research into kernicterus, a disease affecting newborn children.

PERSONAL NEWS

Dr. Thomas K. Ballard has been named chief of staff of the Jackson-Madison County General Hospital. **Dr. John G. Riddler** was named assistant chief of staff. Named to the medical staff executive committee were: Drs. Ballard and Riddler, **Dr. James Thomas**, chief of general practice; **Dr. E. W. Edwards**, chief of medicine; **Dr. Hughes Chandler**, chief of surgery; **Dr. Robert Hill**, chief of anesthesiology; **Dr. Louis G. Pascal**, chief of radiology; **Dr. Chester K. Jones**, chief of pathology; **Dr. Donald R. Lewis**, chief of obstetrics and gynecology; **Dr. Jesse A. Miller**, chief of pediatrics, **Dr. Harold Yarbrow** and **Dr. Robert Smith**, members-at-large.

Dr. Robert D. Lange, Knoxville, has been appointed assistant director of research at the University of Tennessee Memorial Research Center.

Dr. H. Andrew Cserny has completed service with the medical division of the U. S. Navy and is associated with Drs. **E. K. Bratton** and **I. N. Kelley** in the practice of medicine at the Hartsville General Hospital.

Dr. Chalmer Chastain, Cleveland, was guest speaker at a recent meeting of the Bradley County Medical Assistants. Dr. Chastain's subject was "Service with a Smile."

Dr. H. David Hickey, Jr. has been selected as "The Outstanding Intern of the Year" at Methodist Hospital in Memphis. The award consists of an engraved plaque and a trip to a medical meeting of his choice.

Dr. George Lovejoy has been elected to succeed **Dr. Steve Turnbull** as chief of staff for Le Bonheur

Children's Hospital. Other officers are: **Dr. R. Lee Austin** vice president; **Dr. Stanley Crawford**, secretary; **Dr. Sheldon Korones**, chief of medicine; **Dr. Earle L. Wrenn, Jr.**, chief of surgery.

Dr. Richard Wooten moderated a panel discussion on "The Control of Diabetes by Insulin Injection or Pills" at the January 17th meeting of the Memphis Lay Diabetic Society.

Dr. L. R. Dudney, Gainesboro, has been named "The Man of the Year, 1966" by the local Civitan, Lions and Rotary Clubs.

Dr. John David Young, Jr., Memphis, has been chosen as president-elect of Baptist Memorial Hospital medical staff. Dr. Young will succeed **Dr. Raymond F. Mayer**, staff president for 1967.

Dr. James Warren Tipton, ear, nose and throat specialist, has announced the opening of his office at 321 Franklin Street in Clarksville.

Dr. C. C. McClure, Jr. was guest speaker at a recent meeting of the Davidson County Trial Lawyers Association.

Dr. John E. Neumann, internist at Nobles Memorial Hospital, has been appointed chief of staff at Henry County General Hospital. **Dr. I. H. Jones** was named vice chief and **Dr. Tom C. Wood**, secretary-treasurer. **Dr. Kenneth Ross** and **Dr. Arthur C. Dunlap** will serve on the executive committee along with the three officers.

Dr. Julian K. Welch, Jr., Brownsville, has been appointed to a one-year term on the Mead Johnson Scholarship Award Committee of the American Academy of Pediatrics.

Dr. June E. DeWolf, formerly of Burtonville, Illinois, has joined the medical staff of the Veterans Administration Center in Mountain Home.

Dr. Lewis Howard, Harriman, has been elected medical examiner and coroner for Roane County.

The new officers of the medical staff of Memorial Hospital, Clarksville, are: **Dr. Charles A. Trahern**, chief of staff; **Dr. J. W. Ross, Jr.**, chief of obstetrics and gynecology; **Dr. H. F. Vann**, chief of medicine; and **Dr. D. W. Durrett, Jr.**, chief of surgery.

Dr. A. Roy Tyrer, Jr. was guest speaker at a meeting of the Memphis Rotary Club on January 25th.

Dr. R. Eugene Galloway, formerly of Casa Grande, Arizona, has opened his office for the practice of medicine in Elizabethton.

An article on rheumatic fever written by **Dr. Gene H. Stollerman**, chairman of the department of medicine, University of Tennessee College of Medicine, was included among special featured articles by the nation's leading physicians and scientists in the 1966 annual report of the American Heart Association. The annual report was published January 29 as a special section of **The New York Times**.

Dr. Ralph Brickell will serve as chief of staff of the new John W. Harton Memorial Hospital in Tullahoma. In addition to his hospital duties, Dr. Brickell will continue the practice of medicine at Brickell-Harvey Clinic.

Dr. David Stewart, Gallatin, was the featured

speaker at the January meeting of the Tennessee Licensed Practical Nurses of Sumner County.

Dr. Shannon Curtiss, Dickson, will serve as medical chief of staff for Goodlark General Hospital in 1967.

Dr. Lenor de Sa Ribeiro, medical administrator of the Metropolitan Bordeaux Hospital, Nashville, has been named superintendent of the hospital.

Dr. David H. Glenn has assumed the duties as company physician for the Chattanooga Division of Combustion Engineering, Inc. Dr. Glenn came to Combustion from Thiokol Chemical Corporation where he served for several years as medical director at Longhorn Ordinance Plant, Marshall, Texas.

Dr. Alvin E. Smith, Memphis is the new president of the Methodist Hospital medical staff, succeeding **Dr. George A. Coors**. **Dr. Charles Clarke** is president-elect; **Dr. Roland H. Myers**, vice president; and **Dr. Hamel B. Eason**, secretary.

ANNOUNCEMENTS

Annual Convention of AMA

The 116th Annual Convention of the American Medical Association will be held in Atlantic City, June 18-22. Convention Hall and surrounding hotels will house the scientific program; the House of Delegates will meet at the Chalfonte-Haddon Hall Hotel.

Among special presentations planned are four general scientific sessions on backache, healing, patient care, and sex.

The 22 Scientific Sections will offer programs individually, and many will hold joint meetings on subjects of common interest. A full schedule of medical motion pictures is planned. At least five color telecasts will be broadcast, live from a Philadelphia hospital in cooperation with the University of Pennsylvania School of Medicine.

The entire scientific program for the 1967 Annual Convention will be published in the May 8 issue of the Journal of the American Medical Association.

Intensive Coronary Care Nursing Course

The second course in Intensive Coronary Care Nursing has been scheduled at Baptist Hospital, Nashville, for the two week period beginning July 10, 1967. The course, supported by the Public Health Service and the Middle Tennessee Heart Association, will be open to any graduate nurse in Tennessee.

The first week of the course will include lectures on the basic anatomy and physiology of the heart as well as arrhythmias and their electrocardiographic interpretation. The second week includes lectures on coronary artery disease, my-

ocardial infarction and its complications, and further instruction in electrocardiographic interpretation. There will be practice in the use of the various monitors and defibrillators used in coronary care units. Individual instruction and demonstration will be an integral part of the course.

At a later date, a third week will be spent gaining practical experience in a coronary care unit. For further information write to: Director, Coronary Care Unit, Baptist Hospital, Nashville, Tennessee.

American Academy of Pediatrics

More than 3,000 pediatricians, their families and guests, will attend the American Academy of Pediatrics' annual spring session, April 3-5 in San Francisco. The meeting, to be held in the new San Francisco Hilton Hotel, will feature closed-circuit television clinical presentations, a diversified scientific program, and more than 120 scientific and technical exhibits. The program will examine six major areas: child health in contemporary American Society, the newborn, neurologic disorders in children, the child from two to six, school difficulties—childhood's chief occupational hazard, and adolescent growth and behavior.

The Academy and the California Nurses Association will co-sponsor a Conference for Nurses in Child Health in conjunction with the session. A post-convention tour, which will include a meeting of the Hawaiian Chapter of the American Academy of Pediatrics, a tour of the Hawaiian Islands, visits to Maui, Honolulu, Pearl Harbor, will follow the spring session.

For information: Department of Public Information, American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois, 60204.

Symposium on Medicine and Religion

A symposium on medicine and religion will be held at the School of Medicine, University of North Carolina, Chapel Hill, North Carolina, June 11-13, 1967, under the title, "The Physician, the Clergy and the Whole Man." Physicians and clergymen are invited to participate in this occasion, which is sponsored by the Committee on Medicine and Religion of the Medical Society of the State of North Carolina, the Department of Religion of the American Medical Association and the University of North Carolina School of Medicine. Nationally distinguished speakers will discuss a number of areas in which physicians and clergymen have mutual interests and responsibilities with regard to patients and their families, including alcoholism, extension of life, psychiatry and religion and terminal illness and grief. Part of the program will be devoted to small group discussions of these and other topics. Detailed program and information regarding registration and housing will be available April 1. Address all communications to: Office of Continuation Education, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514.

Calendar of Meetings, 1967

	State
April 13-15	Tennessee Medical Association Annual Meeting Sheraton-Peabody, Memphis
May 18	Middle Tennessee Medical Association, Gallatin

	National
April 3-5	American Academy of Pediatrics, Hilton Hotel, San Francisco
April 7-9	American Society of Internal Medicine, St. Francis Hotel, San Francisco
April 9-13	American Urological Association (Southeastern Regional) Hollywood Beach Hotel, Hollywood, Florida
April 10-13	Industrial Medical Association, Americana Hotel, New York
April 10-14	American College of Physicians, Fairmont Hotel, San Francisco
April 11-13	American Surgical Association, Broadmoor Hotel, Colorado Springs
April 17-19	American Association for Thoracic Surgery, Americana Hotel, New York
April 17-19	American Proctologic Society, Jung Hotel, New Orleans
April 17-20	American College of Obstetricians and Gynecologists, Hilton Hotel, Washington, D.C.
April 24-29	American Academy of Neurology, San Francisco Hilton Hotel, San Francisco

April 27-28	American Pediatric Society, Seaside Hotel, Atlantic City New Jersey
April 30-May 4	International College of Surgeons (North American Federation) Americana Hotel, Bal Harbour, Fla.
May 3	American Cancer Society, Inc., Sheraton-Dallas Hotel, Dallas, Texas
May 4-6	American Gynecological Society, Arizona Biltmore Hotel, Phoenix, Arizona
May 6	American College of Psychiatrists, Annual Meeting, Detroit
May 7-12	American Psychiatric Association, Cobo Hall, Detroit
May 18-21	American Association of Plastic Surgeons, Royal York Hotel, Toronto, Canada
May 21-24	American Thoracic Society, Penn-Sheraton Hotel, Pittsburgh
May 25-27	American Gastroenterological Association, Broadmoor Hotel, Colorado Springs, Colo.
May 28-June 1	American Dermatological Association, Broadmoor Hotel, Colorado Springs, Colo.
May 29-31	American Ophthalmological Society, The Homestead, Hot Springs
May 29-June 2	American Urological Association, New York Hilton Hotel, New York

T M A

THE VIEWING BOX

AMA Increases Public Info Efforts

The American Medical Association is stepping up its program to inform the American people about chiropractic—named by the AMA as “an unscientific cult.”

In a recent communication to the Special Subcommittee on Employees' Compensation of the U. S. Senate's Committee on Labor and Public Welfare, AMA Executive Vice President F.J.L. Blasingame, M.D., explained why physicians and the AMA are so opposed to chiropractic.

“Chiropractic is not based on scientific principles,” said Dr. Blasingame, “The medical profession regards chiropractic as a cult, because it follows the hypothesis of its founder that disease results from pressure

on nerves due to minor misalignments of the spinal column. Based on such a premise, chiropractors claim that such conditions as allergies, diabetes, heart trouble, tonsillitis and even cancer, to name a few, can be cured by adjusting or manipulating certain areas of the spinal column. Such a theory, of course, runs counter to the established facts of medical science.”

“Chiropractors,” said Dr. Blasingame, “are not educated or equipped, either by background or training, to diagnose human illness. This inability, coupled with their pseudo-scientific method of treatment and their vociferous stand against life-saving vaccines and against the well-recognized advances of the medical profession in the con-

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trol, diagnosis, treatment and prevention of disease requires, or perhaps demands, that no consideration be given them."

A recent article in *THE JOURNAL* of the AMA points out that "The medical profession is faced with a continuing conflict between scientific medicine and cultist practices. This conflict is one that affects the life and health of thousands of persons.

"Doctors of medicine oppose cultist practices," said the JAMA article, "not because of any fear of competition, but from the desire to protect the public from the hazards of such practices. At best, cultist 'treatment' of sick or injured persons is ineffective. It is harmful primarily because it keeps the patient from receiving effective medical care. It also leads to payments for services which are of no benefit.

"Perhaps the most common example of cultist practice is chiropractic. No scientific proof has ever been offered to support the theory of chiropractic and it has never been accepted as valid by any recognized scientific body."

In a Data Sheet on chiropractic, the AMA points out that "forty-eight states impose license limitations, prohibiting chiropractors from prescribing drugs and performing surgery. Two other states—Louisiana and Mississippi—do not issue even limited licenses."

The number of chiropractors in the United States is uncertain, the Data Sheet reports. The latest census states there are 14,360. The American Chiropractic Association and the International Chiropractors Association, in their literature, claim there are approximately 25,000 chiropractors in the United States. There are 12 schools of chiropractic, but none are accredited by any recognized educational accrediting body. The only stated "requirement" for admission is a high school diploma, and a recent study of "admission requirements" showed that many of the schools do not require even high school graduation. The majority of instructors in most chiropractic schools are not trained or qualified as teachers of the basic sciences and do not possess college diplomas.

A new AMA pamphlet, "Chiropractic: The Unscientific Cult," points out that "since the birth of chiropractic in 1895, the medical profession has been warning the public of the hazards involved in entrusting human health care to these cult practitioners.

"The House of Delegates, governing body of the AMA, has said: 'Either the theories and practices of scientific medicine are right and those of the cultists are wrong, or the theories and practices of the cultists are right and those of scientific medicine are wrong.'"

At the AMA's Third National Congress on Medical Quackery in Chicago, chiropractic was the theme of a half-day session on the program. Eugene Robillard, M.D., Associate Dean of the Faculty of Medicine of the University of Montreal, reported to the Congress on a recent study of chiropractic by the College of Physicians and Surgeons of Quebec.

"The College," said Dr. Robillard, "condemns chiropractic because chiropractic is false theory; the education of chiropractic is below acceptable standards; and because chiropractic is dangerous."

On the same program, H. Thomas Ballantine, Jr., M.D., Boston neurosurgeon and Harvard Medical School instructor, declared: "The confrontation between medicine and chiropractic is not a struggle between two 'professions' but, rather, is more in the nature of an effort by an informed group of individuals to protect the public from fraudulent health claims and practices.

"Who are the quacks?" Dr. Ballantine asked.

"Are they the physicians in our society who believe that different diseases have different causes and require different methods of treatment, including the use of medicine and surgery? Or, are they individuals who believe that most human ailments or disease are the result of a displacement of the spinal column, and that by ascertainment of the subluxation (partial dislocation) of the spine and by proper adjustment to relieve the pressure on the nerves, the cause of the disease is removed?"

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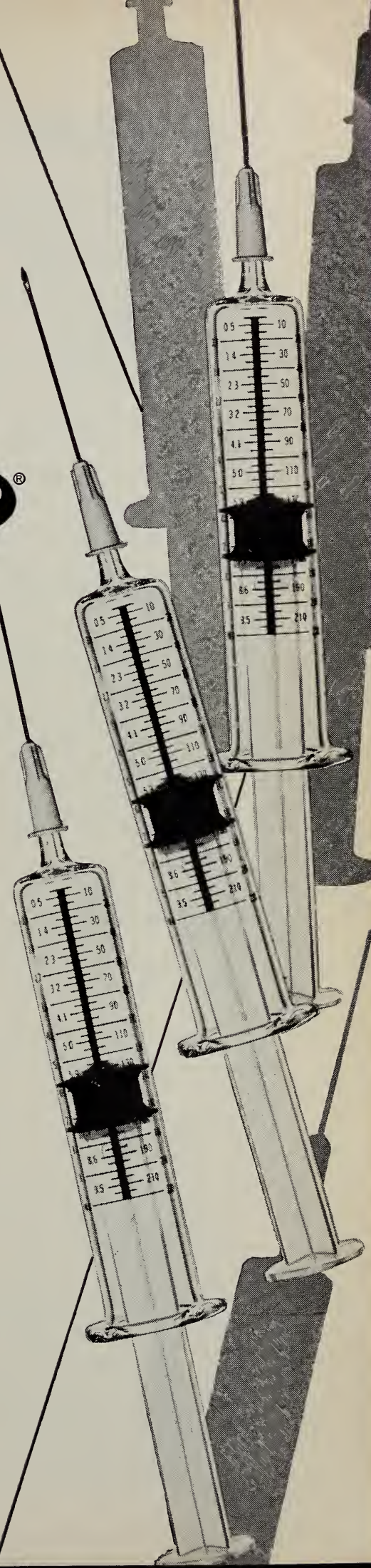
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Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

Journal of the Tennessee Medical Association

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The authors have demonstrated the effectiveness of using a health-related profession in the extension of vital and life-saving care to hospitalized patients not under constant surveillance by a physician. One may well visualize extension of this concept into many areas of health.

Management of Acute Myocardial Infarction: The Coronary Care Unit With a Specially Trained Nurse*

STEWART WALD, M.D.,¹ CRAWFORD F. BARNETT, JR., M.D.,² PAUL H. BARNETT, M.D.,³ W. DAVID STRAYHORN, JR., M.D.,³ FRED D. OWNBY, M.D.,⁴ Nashville, Tenn.

The mortality from coronary heart disease in the United States exceeds one-half million a year, making it the greatest single cause of death. In Tennessee, with a population of 4 million, approximately 15,000 people per year will have an acute myocardial infarction. Many of the deaths due to myocardial infarction occur secondary to arrhythmias. If such arrhythmias can be recognized and treated immediately, significant reduction in mortality can be achieved. Advancements in technology have made possible the establishment of specialized units within a hospital wherein constant, intensive observation and immediate emergency treatment of these complications can be provided. The effectiveness of such coronary care units has been demonstrated by the studies of Day,¹ Meltzer,² and others.^{3, 4}

An estimate of the number of coronary

care unit beds needed is based upon the following: (a) the average period of time a person with a myocardial infarction remains in the coronary care unit is about 7 days; (b) not everyone with an infarction would be admitted to a unit, for some will die before hospital admission; (c) conversely not everyone admitted for suspected infarction would necessarily develop one; (d) it is extremely difficult, if not impossible, to determine which patients may develop arrhythmias; (e) enough beds must be maintained for periods of high occupancy, i.e., the average census of a unit must be below 100 per cent. Considering these factors, approximately 200 coronary care unit beds are needed in Tennessee, distributed in areas of concentrated population.

Appropriate design and equipment for coronary care units can be obtained relatively easily.⁵ It is apparent, however, that the *success of the unit is dependent primarily upon the availability and skill of trained nursing personnel*. Such nurses must be able to recognize and treat instantly acute cardiac emergencies, for it has been observed that the earlier definitive treatment is instituted the greater the survival rate.⁶

In the past and all too often in the present, an emergency situation has been recognized by the nurse, but the only treatment available for her use has been external cardiac massage. The ability of nurses to detect the conditions which are harbingers of more serious cardiac arrhythmias and to institute electrical defibrillation

* From the Tennessee Department of Public Health and Baptist Hospital, Nashville, Tenn.

¹ Surgeon, Public Health Service, Director, Heart Disease Control Program, Tennessee Department of Public Health.

² Surgeon, Public Health Service, Associate Director, Heart Disease Control Program, Tennessee Department of Public Health.

³ Clinical Instructor in Medicine, Vanderbilt University Medical Center, Nashville, Tennessee.

⁴ Director, Coronary Care Unit, Baptist Hospital, Nashville, Tennessee.

623 Cordell Hull Building, Nashville, Tennessee 37219.

The opinions and assertions contained herein are the authors' own and are not to be construed as reflecting the view of the United States Public Health Service.

when necessary has been shown in the coronary care units of Day¹ and Meltzer² to be of primary importance in the successful treatment of patients with acute myocardial infarctions. Even in a hospital with ample house-staff, precious time is lost if the house-officer is the only one who can offer definitive therapy.

The need for skilled, trained nursing personnel is therefore quite clear. In Tennessee there is a paucity of nurses who can assume responsibility for coronary care units. It is estimated that 300 such nurses are needed to effectively operate the required number of units. Although coronary care units have been in operation about four years, at present there are few training courses offered in any part of the country. To develop an effective coronary care unit system, it is necessary for Tennessee to have a program capable of training nurses in a manner that will allow for their employment in coronary care units throughout the State.

Under the joint sponsorship of the Baptist Hospital, Nashville, the Middle Tennessee Heart Association and the Heart Disease Control Program of the Tennessee Department of Public Health a three-week course designed to train coronary care unit nurses was given recently.

The training course consisted of a two week didactic lecture period, as set forth in figure 1, and a third week of supervised practical training in a functioning coronary care unit. The lectures emphasized the basic science and theory of cardiology in addition to electrocardiography, recognition of arrhythmias, cardiopulmonary resuscitation and the use of monitors, the defibrillator and the pacemaker. Small group sessions were held when indicated, many being devoted to electrocardiography and the recognition of arrhythmias.

There was no organized curriculum for the third training week. Students were rotated through the coronary care unit, with no more than two per shift. They were expected to function as coronary care unit nurses, caring for one patient and familiarizing themselves with the management of a coronary care unit.

Some results of the course may be indicated by the following case reports:

Case Reports

Case 1. A 44 year old man with a history of two previous myocardial infarctions was admitted to the coronary care unit of Baptist Hospital with a diagnosis of pre-infarction angina. He was placed on oral quinidine therapy because of frequent premature ventricular contractions. One day after admission he suddenly developed ventricular fibrillation which was immediately recognized by the nurse. Two shocks with the DC cardioverter were unsuccessful. However, after delivering a third shock the nurse noted a slow regular rhythm with a widened QRS complex. The pulses were palpable but weak. Since spontaneous respirations did not return cardiopulmonary resuscitation was started. After 3 minutes of resuscitative efforts spontaneous breathing was resumed, the pulse rate was normal, and the QRS complex returned to normal. The patient's condition then stabilized.

Case 2. A 64 year old man collapsed while riding in a hospital elevator. He was given closed chest massage by a physician and mouth to mouth respiration by a nurse, both of whom were in the elevator. The patient was taken to the coronary care unit while cardiopulmonary resuscitation was continued. He was placed on the monitor. The nurse immediately recognized the presence of ventricular fibrillation. In spite of the presence of medical personnel, the coronary care unit nurse was the only one who knew how to use the defibrillator. She therefore proceeded to defibrillate the patient successfully and advised that intravenous sodium bicarbonate be administered.

Case 3. A 47 year old white man was admitted to Baptist Hospital with a history, electrocardiogram and laboratory studies consistent with an acute myocardial infarction. He did well for 9 days, but on the 10th day was transferred back to the coronary care unit because he developed ventricular fibrillation on the ward. The following day he was noted by the coronary care unit nurse to be in ventricular tachycardia which changed to ventricular fibrillation. He was defibrillated and the rhythm returned to normal. Two days later the patient had two more episodes of ventricular tachycardia followed by ventricular fibrillation. Each time the nurse recognized the problem. On both occasions the patient was successfully defibrillated. Following the fourth defibrillation the patient remained well without any signs of cardiac irritability and after a 2-week stay in the coronary care unit was transferred back to the general ward service and did well.

The training of sufficient nurses for coronary care units will require repeated courses. We believe that courses offered by a central agency will provide a more efficient means of teaching and of maintaining standards in coronary care units throughout Tennessee. Such a course will be only an introduction to nursing on the

coronary care unit. It should offer a background upon which the nurse can base practical experience. As with any learning procedure the nurses must be exposed to continued in-service training when they return to their individual coronary care units.

The most difficult and most important aspect of the training course is the analysis of arrhythmias. It should be the responsibility of each physician personally, and each individual Director of a coronary care unit to review arrhythmias with the nurses periodically. A tape recorder device recently has become available which can display various arrhythmias on an oscilloscope.⁷ This instrument probably will be an excellent teaching device within the coronary care unit.

The presence of trained personnel not only will provide better care for the patient with a myocardial infarction but also will impart a stimulus for postgraduate education among attending and house-staff physicians of the hospital wherein the unit is located.

Summary

The mortality from coronary heart disease—the single greatest cause of death in the United States and in Tennessee—can be decreased by coronary care units and coronary care unit nurses. The availability of such nurses will make coro-

nary care units practical for community hospitals which do not have house staff. Recently a course for training nurses for service on coronary care units was organized and given at Baptist Hospital, Nashville, wherein students were taught the techniques of defibrillation, external pacing, and the recognition of acute cardiac problems. These nurses subsequently have accepted the responsibility of the new position and have used their new skills most successfully.

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* * *

THE FRAMINGHAM STUDY: An Epidemiological Approach to Coronary Heart Disease (Editorial) by Thomas R. Dawber and William B. Kannel. *Circulation* 34:553, 1966.

The authors call attention to a prospective epidemiologic study, initiated in 1949, of coronary heart disease in a selected population in Framingham, Massachusetts. Much has been learned concerning "the circumstances under which coronary heart disease arises and flourishes."

Factors identified with some certainty to be associated with increased susceptibility to coronary artery disease have emerged—elevated lipid levels, elevated blood pressure, excessive body weight, lack of physical activity, the cigarette smoking habit, low vital capacity, gout and diabetes. It is

felt sufficient validity is associated with these findings that a preventive program can now be instituted by the physician, using ordinary office procedures to identify coronary disease-prone individuals.

The continuing study of this population group offers promise additionally of evaluating factors which have been recently indicated as contributory to coronary artery disease e. g. emotional stress, pre-beta lipoprotein, triglyceride, physical fitness and clotting factors. Additionally, it is evident that by such single or combined long-term prospective studies of populations that factors concerned with the pathogenesis of other chronic human disease may be identified. (*Abstracted for the Middle Tennessee Heart Association by John L. Shapiro, M.D., Nashville*)

As the number of patients treated by special technics or medications become more "run-of-the-mill," and the experimental stage of a treatment has passed, the home physician will need to pick up the follow-up treatment and advise on matters of health in ensuing years. This review should be helpful for those who need to follow up in the care of patients with implanted valves.

The Long-Term Medical Management of Patients With Prosthetic Heart Valves

ALEXANDER C. McLEOD, M.D.,* Nashville, Tennessee

Introduction

Over the course of the past five years the techniques of cardiac surgery have advanced and increasing numbers of patients with prosthetic heart valves are returning to their homes and work. The practicing internist and generalist are being confronted with the responsibility of their continuing medical care. In the literature of recent years, the role of the internist in cardiac surgery has been discussed and the medical complications have been detailed. Little emphasis has been placed on long-term medical management. This article will summarize the dominant complications and outline an approach to management.

Complications

The post-operative complications may be divided into three periods; immediate, early and late. Immediate and early complications occur during the period of hospitalization. Late complications occur after discharge from the hospital. It is this last group which will be discussed.

Because experience is still being accumulated and because of the variations found in reported series, it is difficult to estimate true incidence for a given complication. Therefore, the major complications will be discussed as separate entities without any effort towards representing incidence. Indeed, it is perhaps best that the physician be equally aware of all possible complications, these patients being most unpredictable.

Problems Related to Prior Complications

As a generalization, once discharged, the hospital complications will have been relegated to a *chronic* as opposed to an *acute* position, the latter having been resolved prior to discharge. This *acute* group in-

cludes such problems as major arrhythmias, low cardiac output syndrome, electrolyte disturbances, obvious infections, pulmonary difficulties and major renal and neurologic complications. The *chronic* group includes the following:

(1) *Minor Arrhythmias.* It is common for atrial fibrillation associated with mitral disease to persist postoperatively. Though this may be managed conservatively, it is theoretically desirable to attempt reversion to normal sinus rhythm, thereby effecting an increase in cardiac output. This may not have been accomplished prior to discharge but should be attempted within three months.

An occasional premature ventricular contraction may be of no consequence, but occurring frequently they may herald more serious arrhythmias or myocardial failure.

Minor degrees of heart block are of no real consequence except where due to excessive dosage of digitalis. The more pronounced degrees of heart block will have been treated with artificial pacemakers prior to discharge.

(2) *Congestive Heart Failure.* Varying degrees of congestive heart failure are noted, and will be under treatment at the time of discharge. In those unduly resistant to medical therapy, some more serious causative factor such as valvular regurgitation must be sought.

(3) *Minor Renal Insufficiency.* Occasionally a patient who has sustained a transient period of acute tubular necrosis will have a slight degree of azotemia at the time of discharge. This will clear rapidly and offer no consequence, providing cardiac output is good and no additional renal difficulties occur.

(4) *Residual Neurologic Difficulties.* In those who have had significant cerebral injury as a result of the surgical procedure or

* Middle Tennessee Heart Association Fellow, 1966-1967.

related complications, varying degrees of neurologic deficit may exist. Where hemiplegia or hemiparesis are persistent, physical rehabilitative measures should be instituted early in order to effect maximal results.

(5) *Infection*. Because of the use of indwelling catheters, urinary tract infection is a frequent complication in the post-operative period. Occasionally this may have eluded recognition during hospitalization or appropriate antibiotic therapy may still be under way at the time of discharge.

Because prosthetic valves are foreign bodies, they may readily serve as sites of infection. When infection occurs on a prosthetic valve, valvular regurgitation may follow. The appearance of subacute bacterial endocarditis in a patient with a prosthetic valve is often subtle and the diagnosis may be quite elusive. The symptomatic manifestations are similar to those of the same process in any cardiac patient. The development of aortic diastolic murmurs and changes in systolic murmurs are the respective hallmarks of this process in those with aortic and mitral valvular replacements. Early diagnosis, bacterial characterization and appropriate antibiotic therapy are mandatory if prognosis is to be favorable.

Serum hepatitis is another infectious possibility to be considered because of exposure to numerous units of blood during the surgical procedure. The appearance of jaundice, fever, and anorexia are characteristic, but may be confused with other complications.

(6) *Nonhemolytic Anemia*. It is not unusual to find a mild degree of anemia at the time of discharge. With adequate dietary measures this will usually correct itself during the early post-hospital period. In those where iron deficiency has been proven, oral iron therapy may have been instituted prior to discharge.

Complications Presumably Related to the Surgical Procedure

There are two syndromes that have been noted to occur from two to eight weeks post-operatively.

(1) *Post-perfusion Syndrome*. Fever, splenomegaly and atypical lymphocytes are noted. This is a benign self-limited entity

but occurs in a situation where subacute bacterial endocarditis should be strongly suspect and may be confused with this syndrome. This syndrome has many characteristics reminiscent of infectious mononucleosis but remains incompletely understood.

(2) *Post-cardiotomy Syndrome*. Better known from its association with mitral commissurotomy but occasionally seen following open heart procedures, post-cardiotomy syndrome is manifest by pleural and pericardial inflammation with effusion, often with fever, and responds well to salicylates.

Problems Related to Prosthetic Valve Function

(1) *Thromboembolism*. The formation of thrombi with subsequent embolization is one of the major difficulties encountered with prosthetic valves and as such is the basis for routine anticoagulation. Even with anticoagulation, a few will manifest this complication. Thrombus formation may occur in such a position as to cause malfunction of the valve itself, in addition to peripheral embolization.

(2) *Postoperative Valvular Regurgitation*. Failure of suture lines to hold, either due to surgical defect or infection, is a major dread and can be of disastrous consequence. The early detection of infection and recognition of pathologic murmurs are the chief clinical clues to this complication, but in a patient who fails to show a good clinical response to his operation without other obvious signs, this should be considered. It has been suggested that routine phonocardiograms and cinefluoroscopy should be obtained as a base-line and in serial sequence to evaluate these patients more completely as regards this particular complication, but this is not a standard procedure at this time.

(3) *Hemolytic Anemia*. A few with aortic valve prostheses will develop an hemolytic anemia secondary to mechanical trauma from the valve. Depending upon the severity of the anemia, transfusions and occasionally surgical intervention may be required.

Problems Related to Underlying Cardiovascular Disease

(1) *Myocardial Failure*. A few will fail

to respond adequately to their surgical procedure and find little benefit therefrom. Most of these have underlying irreversible myocardial damage and must be maintained with available medical means. Other causes of poor clinical response such as valvular malfunction or subacute bacterial endocarditis must be eliminated.

(2) *Hypertension.* A few with aortic valve replacement will reveal an unsuspected degree of hypertension. This may represent previously existing hypertension, masked prior to operation. When noted, the hypertension should be investigated in such manner as would be appropriate for any hypertensive patient, followed by prompt therapy.

Miscellaneous Problems Which May Be Encountered

The complications which may be encountered as a result of the use of medications such as digitalis, diuretics, anticoagulants and other drugs are similar to those encountered in other patients. The susceptibility of patients with prosthetic valves to various medical and surgical conditions is likewise similar, with the following exceptions which deserve special attention:

(1) *Infection.* As previously noted, subacute bacterial endocarditis remains an important lifelong consideration. It is often difficult to determine whether it has been acquired at the time of operation or subsequently. Therefore, any infection in a patient with a prosthetic valve must be considered important.

Because of the possibility of recurrent rheumatic fever, routine antibiotic prophylaxis is indicated and dosages are those of similar prophylaxis in any patient with rheumatic heart disease.

(2) *Pregnancy.* While successful pregnancies have been completed in patients with prosthetic heart valves, the individual situation must be cautiously considered. The stress of pregnancy upon the heart in some may be poorly tolerated, while anticoagulation may present increased risk to both mother and child. If pregnancy is to be successful, careful supervision will be required and this usually is best accomplished at a major medical center.

(3) *Surgical Procedures.* Providing the

possibilities of infection and bleeding are appropriately considered, patients with prosthetic heart valves may undergo any necessary surgical procedure with special attention to their cardiac status.

Management

While the management of patients with prosthetic heart valves must be tailored to the requirements of the individual, certain general guidelines may be outlined. The post-hospital period may be conveniently divided into an early period, lasting approximately 6 weeks, and a late period covering the time thereafter.

During the early period, the patient will be recovering from the general effects of surgery, while in the later period, his cardiac status will be the major area of concern, although readjustment to a changing life situation because of an improved cardiac status may prove significant.

Early Post-Hospital Period

(1) *General Measures.* During the first 6 weeks following discharge from the hospital activities should be restricted to bed rest with ambulation about the house as tolerated, but without exertion of any type. A low sodium, high calorie diet is indicated during this period. Mild analgesics to control incisional discomfort and sedation for sleep at night because of a sedentary daily existence may be required. Ideally, a daily record of weight and temperature should be kept.

(2) *Medical and Surgical Follow-up.* During this early period the primary aim of medical follow-up will be the regulation of anticoagulants as determined by laboratory checks and appropriate change in anticoagulant dosage. The physician must remain aware of all potential complications in order to detect any difficulty as early as possible. Other laboratory procedures which should be checked at least once during this period include complete blood count, urinalysis, electrocardiogram and chest film.

The cardiac surgeon will want to see the patient at the end of this 6 week period for follow-up and if he is to be followed by cardiologists at the institution where the operation was performed, the fourth week would be the appropriate time for such consultation.

(3) *Special Aspects.* While regulation of anticoagulants remains the primary concern during this period, control of congestive heart failure is also important. In addition, antibiotic prophylaxis for rheumatic fever should also be instituted during this period. Minor arrhythmias require no special treatment during this period, although there is no strict contraindication to the use of quinidine in maintenance dosages where indicated. Mild degrees of anemia may be managed conservatively.

The two complications which are most likely to become evident during this period are the post-cardiotomy syndrome and the post-perfusion syndrome. If one of these should appear, depending upon severity the patient either should be referred to the medical center where the operation was performed or be treated with moderate dosages of salicylates, provided the possibility of subacute bacterial endocarditis has been thoroughly evaluated and eliminated.

Late Post-Hospital Period

(1) *General Measures.* By this time the patient will have recovered sufficiently from the general effects of operation to enable him to increase daily activities. However, for another period of approximately 6 weeks, he should avoid lifting or pushing heavy objects as well as marked physical exertion. Sexual intercourse may be resumed if progress has been satisfactory. The point at which a given patient may be considered fit to return to his type of work is quite variable, and depends perhaps as much on the desire to work as anything else. Most should be able to return to at least limited work by the end of 3 months following discharge, but some may require a longer time to recover. It is well observed that many do not obtain the full benefit of this type of surgery for a period up to one year following discharge. Therefore, premature judgment as to work disability should not be made in an individual instance until this period has lapsed. The degree of exercise tolerated in a work situation will vary considerably, and appropriate consideration for all factors must rest with the individual patient under consideration.

Usually he may assume a regular diet

without excessive salt intake during this period. He should not require analgesic or sedative medication after the early period is completed. Frequent weight and temperature records, while not mandatory, do provide an increased measure of protection. In any event, weight should be recorded at least monthly and if there are any symptoms of infection, daily temperature records should be kept.

(2) *Medical and Surgical Follow-up.* During this period the aims of medical follow-up are several, including those of the early period, but of increasing importance is guidance towards an improved life situation and an ultimately more productive existence.

The internist or generalist will find that follow-up visits at monthly intervals for the first several months, subsequently extended to quarterly visits, will suffice. If, however, difficulties are noted, it is obvious that more frequent visits will be required. Complete blood count, urinalysis, electrocardiogram and chest films should be checked at 6 months and again at 12 months post-operatively, and thereafter at least annually.

Most cardiac surgeons would prefer to see the patient one year following operation in order to obtain a perspective of results. If he is to be seen by cardiologists at the medical center, visits should be arranged on a quarterly or twice-yearly basis.

(3) *Special Aspects.* Once adequate anticoagulation has been effected, determinations of prothrombin time may be obtained at wider intervals, but should be checked at least every 6 weeks for the rest of the patient's life. The patient should be cautioned of the symptoms of inadequate anticoagulation or bleeding, and of the augmentative effect of drugs such as aspirin on their anticoagulation. The management of congestive heart failure must be individualized; but in general many patients with replacement of the aortic valve may be maintained effectively without the use of digitalis or diuretics, while most of those with replacements of the mitral valve require one or both of these medicaments indefinitely. Antibiotic prophylaxis for rheumatic fever should be continued indefinitely.

As mentioned earlier, an aggressive at-

tempt should be made to revert atrial fibrillation to normal sinus rhythm within 3 months postoperatively. This is most effectively accomplished today by cardioversion and therefore may require a brief return to the medical center where the operation was performed. Following successful cardioversion maintenance dosages of quinidine will be required indefinitely.

Persisting anemias should be completely evaluated anew with particular investigation directed towards bleeding related to anticoagulation, the anemia of infection, or hemolysis related to valvular damage of red cells.

During the post-hospital period, the greatest responsibility of the physician rests on his awareness of the possibility of infection and valvular malfunction, although he should consider all other complications. A high index of suspicion is the greatest asset in the early detection of infection, while frequent auscultation for the appearance of abnormal murmurs is the clue which should be sought for valvular malfunction.

Finally, management in relation to subsequent surgical procedures and pregnancy should be mentioned.

For minor surgical procedures, such as dental work, the patient should take appropriate antibiotics during the immediate period. If procedures such as extraction are to be performed, a brief withdrawal of anticoagulants is necessary with prompt reinstitution of same shortly thereafter. For more major surgical procedures these

same considerations hold true but require more delicate balance. If major surgical procedures are to be performed, it may be best to refer the patient to the medical center where the heart surgery was performed.

It is difficult to state categorically the advisability of pregnancy in these patients. Their management in terms of anticoagulants and other aspects is demanding and will require close follow up and ultimate hospitalization at the medical center.

Conclusion

This review has outlined the major types of complications which may be seen in patients with prosthetic heart valves following their discharge from the hospital. One general plan of management has been given. While admitting that the individual seldom adheres to the generalization, certain trends do indicate that such a program is effective. If the internist or generalist is aware of what complications may ensue and is knowledgeable as to what course of action to take in the event of such complication, the management will be effective, and the physician may approach the responsibility with assurance. While the responsible physician will meet these basic requirements of management, the concerned physician will also attempt to assist in the acclimatization of his patient to a new life situation. The combination of these ingredients in the patient's physician is a necessary element in the ultimate success of the surgical procedure.

* * *

General Practitioner

Who is interested in entering the field of industrial medicine with the Aluminum Company of America, Alcoa, Tennessee. Contact: J. S. Phelan, M.D., Alcoa, Tennessee 37701.

WANTED

INTERNIST, Board qualified, or Board certified in Internal Medicine, Florida licensed, to be associated with a group of three internists. Salary and percentage basis the first year, with minimum guarantee of \$18,000. Located on Southeast coast of Florida. Future partnership assured. Box No. DC1, Tennessee Medical Association.

Schedule
Cardiac Nursing Specialist Course

FIRST WEEK

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00 ..		Quiz	Quiz	Quiz	Quiz	Quiz
9:00 ..	Welcome and Orientation	Coronary Circulation	Special Features of Circulation	Renal Aspects of Cardiovascular Disease	Respiration	Antiarrhythmic Drugs
10:00 ..	Anatomy	Autonomic Nervous System	Regulation of Circulation			Pressor Agents
11:00 ..	Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
12:00 ..	Conduction System	Systemic and Pulmonic Circulation	Regulation of Circulation Cont'd.	Introduction to Arrhythmias	Respiration Cont'd.	Diuretics
1:00 ..	Basic Properties of Myocardium			Fast Arrhythmias	O ₂ Therapy, IPPB & Resuscitation	Aggressive Coronary Care
2:00 ..	LUNCH					
3:00 ..	Cardiac Cycle	Cardiac Output	EKG Technical Aspects	Slow Arrhythmias	Electrolytes And Acid Base Balance	
4:00 ..	Coffee	Coffee	Coffee	Coffee	Coffee	
5:00 ..	Cardiac Cycle Cont'd.	Cardiac Output Cont'd.	Normal EKG	Pacemaker Problems	Cardiac Pharmacology	
6:00 ..	Review	Review	Review	Review	Review	

SECOND WEEK

8:00 ..	Quiz	Quiz	Quiz	Quiz	Quiz	
9:00 ..	Coronary Artery Anatomy and Pathology	Small Group EKG Sessions	Congestive Heart Failure	Small Group EKG Sessions	Coronary Risk Factors	Special X-Ray Techniques
10:00 ..	Pathophysiology of Myocardial Infarctions		Pulmonary Edema	Pulmonary Embolism	Psychiatric Aspects	Rehabilitation of the Coronary Patient
11:00 ..	Coffee	Coffee	Coffee	Coffee	Coffee	
12:00 ..	Symptomatology of Myocardial Infarctions	Cardiac Resuscitation		Anticoagulation	Nursing Factors	
1:00 ..	Physical Findings in Myocardial Infarctions	Electronic Equipment	Shock	Other Types of Heart Disease	Small Group EKG Sessions	
2:00 ..	Laboratory Findings of Myocardial Infarctions	Cardiac Arrest Recognition & Treatment	Demonstration of Arrhythmias	Small Group EKG Sessions	Case Reports and Examples	
3:00 ..	Coffee	Coffee	Coffee	Coffee	Coffee	
4:00 ..	Small Group EKG Sessions	Use of Drugs in Cardiac Arrest	Resuscitation Practice	Small Group EKG Sessions	Final Exam	
5:00 ..	Review	Review	Review	Review		

STAFF CONFERENCE

Vanderbilt University Hospital*

Gastrectomy and Malabsorption

DR. DAVID H. LAW: Today we have a patient who represented a management problem in malnutrition secondary to gastric and small bowel surgery. The case will be presented by Dr. Richard Helman.

DR. RICHARD HELMAN: This was the first admission of this 57 year old carpenter to Vanderbilt University Hospital. He complained of weight loss and diarrhea. The patient was seen initially at the Veterans Administration Hospital and had been transferred to the Clinical Research Center of Vanderbilt University Hospital for further evaluation and therapy.

The patient gave a 20-year history of ulcer symptoms and in August, 1964 he had a perforation of a duodenal ulcer which was repaired by simple closure. In September, 1964 he had an elective vagotomy and pyloroplasty. He did well postoperatively and was able to return to work in 2 months. However, he never regained his pre-operative weight of 140 pounds and he noted that, whereas prior to operation he had been chronically constipated, postoperatively he had 2 to 3 semiformal stools daily.

In March, 1965 the patient developed a midgut volvulus requiring the resection of 3 feet of terminal jejunum and ileum. After this operation he began having 5 to 10 soft, bulky, foamy stools daily and lost about 30 pounds. He also noted dizziness, diaphoresis and perioral paresthesias occurring after exercise and occasionally at rest 2 hours after meals.

Significant past history included diabetes mellitus since 1962 treated with tolbutamide. He smoked approximately one package of cigarettes daily and had had "pneumonia" several times. He had suffered from eczematous dermatitis since 1954 and was taking chloroquine daily at the time of admission.

Physical examination on admission revealed a B.P. of 100/70 mm. Hg., P. 90 and regular, and R. of 14 per minute. His weight was 114 lb (52 kg.).

Significant findings included evidence of recent weight loss, normal fundoscopic examination, moderate increase in AP diameter of the chest, and numerous abdominal scars. There was mild eczematous dermatitis of the face and hands but no evidence of peripheral diabetic neuropathy or orthostatic hypotension.

Pertinent laboratory data in March, 1965 included a fasting blood sugar of 123 mg.% and a normal HCT, amylase, and serum albumin. In September, 1965 a fecal fat content of 9.3 Gm/day

was recorded; serum calcium, phosphorus, cholesterol BSP., and PCV. were all normal. Stools were negative for guaiac, ova and parasites. The Schilling test showed 6.7% excretion in 48 hours. A barium enema and upper gastrointestinal x-ray series were normal as was a suction biopsy (oral) of the small bowel mucosa.

Laboratory studies obtained during the present admission included normal values for PCV., FBS, serum calcium, phosphorus, potassium, carotene, albumin and globulin. D-xylose excretion test was low normal with 4.8 Gm. excreted in 5 hours after a 25 Gm. loading dose. Schilling test showed 12.2% of the labeled vitamin B₁₂ excreted in a 48 hour urine collection. This value is well above the pernicious anemia range but somewhat lower than is usually seen in normals. Fat balance studies are shown in table 1 and will be discussed later.

DR. RICHARD L. DILLARD: This patient presented an interesting problem in that he had multiple possible causes for his steatorrhea and progressive weight loss. One obvious cause was the resection of a portion of his small intestine. Other possible contributing factors were his previous gastric surgery and vagotomy, and the presence of diabetes mellitus.

Although this patient had a considerable portion of his small intestine removed, it is not likely that this should be a major problem in his nutritional balance. Usually much more extensive resection of the small intestine is necessary to cause severe malnutrition and generally only the patients with less than 60 cm. of residual small bowel have severe difficulty.¹

Table 1

	Control Diet			MCT Supplements		Control Diet	
Calories:	Approx. 2500			Approx. 2500		2500	
Dietary							
Fat:	98.7	115	121	114	114	50	50
3-day							
Stool Fat							
Collec-	35.3	20	17.3	8.6	7.6	21.4	10.7
tion:							
(Gm/day)							
Coef-							
ficient							
of Fat	63%	82%	85.7%	91%	93%	57%	78.6%
Absorp-							
tion:							

The severity of malabsorption after small bowel resection depends upon,—(1) extent and site of resection, (2) presence or absence of ileocecal valve, and (3) length and

*From the Department of Medicine, Vanderbilt School of Medicine, Nashville, Tenn.

condition of the remaining small bowel and other digestive organs.

It may be argued that in this patient the remainder of his small bowel and "other digestive organs" were not entirely normal. He does not have a normal stomach, the gastrointestinal innervation is altered, and he has diabetes. Although the problem of diabetic diarrhea has not been discussed, it should at least be noted that some diabetics may have severe diarrhea with or without steatorrhea—apparently related only to the presence of diabetes mellitus and its complications.²

In extensive resections of the distal small intestine, absorption of carbohydrate and water soluble vitamin is not a problem, though one must be concerned with vitamin B₁₂ and severe fat malabsorption. Conversely, much of the ingested carbohydrate is absorbed in the proximal small intestine and abnormalities in absorption of these substances are to be expected in proximal resections. These patients may have a flat glucose tolerance test as well as deficient absorption of D-xylose. Either group may have excessive fluid and mineral loss and severe deficits in magnesium, calcium, and potassium may occur, with persistent diarrhea.

It has been found that a high carbohydrate, high protein, low fat diet with frequent feedings is the most beneficial in the management of patients with extensive small bowel resections.³ Increasing the dietary fat beyond a point tends to increase the steatorrhea and diarrhea, thus increasing caloric, mineral, and fat soluble vitamin loss. The amount of fat tolerated by such patients must be determined individually.

An interesting adaptation has been reported in patients with 75 and 80% of their small intestine resected. The number of epithelial cells per unit length of villus apparently increased, thus increasing the absorptive surface of the remaining bowel. This change was not noted in patients with resections of 50% or less.⁴ Another complicating factor in these patients is an apparent gastric hypersecretion with volumes up to from 4 to 5 liters daily. This occasionally requires gastric surgery (Vagotomy and pyloroplasty) for control but obviously should not be a problem in this patient.

Post-gastrectomy (and vagotomy) complications can be readily divided into two phases—the immediate postoperative problems, which are primarily surgical in management, and the "late" complications. We shall deal with the latter which are primarily medical problems. A brief outline is given in table 2.

Table 2

A. Postprandial Symptoms

1. "Dumping" within one hour after meals with weakness, palpitations, perspiration, diarrhea, cramping, etc.
2. Rebound hypoglycemia 2-3 hours after meals with weakness, palpitations, perspiration, hunger.
3. Inadequate reservoir function with bloating, fullness, inability to eat.
4. Afferent loop syndromes
 - a. With malabsorption
 - b. Without malabsorption

B. Longterm Metabolic Derangements

1. Malabsorption syndrome—secondary to above (A 1, 3, and 4).
2. Osteoporosis and osteomalacia due to derangements in calcium, phosphorus, and protein metabolism.
3. Anemia
 - a. Defective iron absorption
 - b. Rarely B₁₂, folic acid deficiency

C. Weight loss—mainly related to A, occasionally related to factors listed under B.

Excluding for the moment the fact that our patient had a significant portion of his small bowel resected, attention should be directed to the role of the patient's drainage procedure and vagotomy to his steatorrhea. The incidence of weight loss or failure to gain weight after gastric resectional surgery has varied in different series from 10 to 70%.⁵ Fat excretion studies of Billroth II type resections have shown that one-third to one-half of the patients develop steatorrhea.⁶ In patients with drainage procedures (Pyloroplasty or gastrojejunostomy) and vagotomies, steatorrhea has been noted in approximately 40 percent.⁷ In the vast majority of the patients the steatorrhea is mild and of no consequence. Although, theoretically, it seems that the incidence of steatorrhea with a pyloroplasty should be lower than with a gastrojejunostomy, it still is significant.

The exact role vagotomy plays in steatorrhea is unclear. Many factors have been blamed, particularly when there is an asso-

ciated gastrojejunostomy. These include impaired pancreatic and biliary function which is due partially to asynchrony between gastric emptying and pancreatic-biliary secretion, altered small bowel motility, altered intestinal pH values, small bowel mucosal changes, and excessive or abnormal growth of intestinal bacteria, particularly if a poorly functioning afferent loop is present. Most of these factors are difficult to incriminate with any certainty with the exception of bacterial overgrowth in an afferent loop. Many studies have suggested that if one obtains excessive counts of bacteria from the stoma of the afferent loop, a response to systemic antibiotics can be anticipated.⁸ Attempts to supplement pancreatic and bile flow with extracts of these substances have generally been unrewarding. There was no apparent improvement in our patient on these preparations.

It is thought by some that the diarrhea and steatorrhea following vagotomy are separate entities. After a vagotomy intestinal peristalsis is usually impaired for only approximately 14 hours, and following this the normal intrinsic innervation of the bowel resumes its predominant role in gut motility and no definite alteration in intestinal motility can be defined. Thus, normal bowel function may be present without diarrhea. The lack of diarrhea does not necessarily imply that the patient will not have steatorrhea, however.

The role of pH of the gastric efflux is also thought to influence pancreatic secretion. Following vagotomy the pH is not as low as normal and the normal stimulus from the duodenum on pancreatic secretion (secretin mediated) is impaired.

The presence of mucosal changes does not seem to be a significant factor if indeed, it is a factor at all. Although minimal atrophic small bowel mucosal changes at the stomal margin are described, they are not extensive nor severe enough to produce the malabsorption noted. The occasional occurrence of a true gluten enteropathy after gastric resection is, of course, another problem and may be worsened with gastric surgery.

Generally, it seems there may be several contributing factors in the production of post-gastroenterostomy and vagotomy stea-

torrhea and that there is no easy solution to the management of the problem.

Again it should be emphasized that a frank malabsorption picture is unusual and that its incidence can be minimized by the selection of a more physiologic surgical procedure. This is shown in the results of Scott and Associates⁹ who noted only a 8.7% incidence of weight loss with an antrectomy, vagotomy and gastroduodenal anastomosis. The retention of the duodenum in the gastrointestinal stream seems to decrease significantly the incidence of malabsorption and iron deficiency. In some instances improvement can be obtained by the conversion of a Billroth II to a Billroth I anastomosis.

Poor dietary intake is another factor that frequently is operative in these patients. It is such a mundane matter that it may be easily ignored. The patients do not consume an adequate diet because of quick filling of a small gastric pouch, postprandial pain and fear of "dumping" and its unpleasant symptoms. The simple corrective measures of multiple feedings, avoidance of concentrated carbohydrates, and avoidance of liquids with meals may enable the patient to significantly increase his caloric intake.

DR. LAW: We were particularly interested in this patient and his response to dietary supplementation with medium-chain triglycerides. Medium-chain triglycerides (MCT*) are a mixture of triglycerides which contain fatty acids of "shorter" length than usual dietary fatty acids. The fats in our normal diets contain carbon chains of 18 to 20 whereas MCT has chains of 8 (octanoic) and 10 (decanoic) carbon atoms. These triglycerides are obtained from coconut oil and administered as a dietary supplement.

Available studies suggest that MCT might be transferred from the intestinal lumen to mucosal cells without prior hydrolysis. Playoust and Isselbacher,¹⁰ working with trioctanoin, noted that it was hydrolyzed intracellularly by a microsomal enzyme system which was not active on the longer chain triglycerides. The fatty acids formed by this hydrolysis remained in a free, unes-

* Kindly provided by Dr. Herbert Sarret, Director of Nutritional Research, Mead Johnson Research Center, Evansville, Indiana.

terified form, thus favoring their transport in the portal system rather than by a lymphatic route. Utilizing labeled trioctanoin (C^{14}) they were able to demonstrate that 80% of the label appeared in the portal vein plasma as free, unesterified fatty acids. It is postulated that a mucosal lipase such as that which acts on trioctanoin may have a role in the intracellular hydrolysis of ingested medium-chain triglycerides other than trioctanoin. These medium-chain triglycerides, having been absorbed directly by the mucosal cells are therefore not dependent on the presence of bile salts and pancreatic lipase for their utilization.

The applications of the properties of MCT are obvious. Directly applied to this patient, it is apparent that MCT can be absorbed more effectively than normal fat (Table 1). This is illustrated most strikingly in the patient reported by Winawer and associates.³ The substitution of MCT for dietary fat results in more efficient absorption of fat, less fat loss in the stool and, likewise a decrease in the loss of fat soluble vitamins and minerals. Also the problem of inadequate mixing of the bile salts is circumvented as these salts are not necessary for the emulsification of the ingested MCT.

Although our patient did not experience a significant weight gain in the short time he was receiving MCT, there was a striking reduction in the amount of fat in his stool.

In other conditions MCT has theoretical and practical uses. These conditions include pancreatic insufficiency of diverse etiologies, bile salt abnormalities due to obstruction or impaired liver function, defects in mucosal cell structure (due either to disease of the mucosal cells or physical loss of mucosal cells), and in lymphatic abnormalities such as chylous ascites, or chylothorax, and lymphangiectasia of the small bowel.

Generally patient acceptance of the product has been good. When prepared, the mixture has the texture and flavor (various flavors can be added) of a milkshake. In most situations it is given as a dietary supplement to the standard diets, but, if well tolerated there is no limit to the amount which can be ingested. The form in which it is administered can, in fact, be used as a total diet since it is compounded as a com-

plete food with essential vitamins, minerals, carbohydrates, and proteins. This property makes it particularly attractive in the management of chylous ascites in infants.

Problems with acceptance are encountered occasionally in patients who have a tendency to "dump" if excessive amounts of MCT are ingested too rapidly. This can usually be avoided if the patients are well-coached in the purposes of the supplement and ingest the MCT slowly between other meals.

At present these compounds are available only for study purposes but they represent one of the practical applications of research studies applied to clinical problems.

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CLINICOPATHOLOGIC CONFERENCE

Pulmonary Consolidation of Undetermined Cause*

This 72 year old white woman was admitted to the Methodist Hospital on February 12, 1966, with a chief complaint of lower abdominal pain for approximately one month. The pain was insidious in onset, cramping in nature, located in the left lower quadrant and was aggravated by movement. This was associated with fever and a chronic cough. The patient was on a strict diet for a known peptic ulcer.

The B.P. was 100/60, P. 92, R. 25, and T. 101° F. The patient was obese. The heart sounds were distant and the lungs were reported to be clear to auscultation. The abdomen was soft and nontender. No masses were felt.

A chest x-ray on admission revealed an extensive mottled infiltration in the right middle lobe. A plain film of the abdomen showed a normal bowel gas pattern. A gastrointestinal series revealed a hiatus hernia with no other remarkable changes. An EKG. was within normal limits. The HCT. was 39%, Hgb. 12.7 Gm., WBC. count 8,400 with 72% PMN., 16% lymphocytes, 10% monocytes, 1% bands and 1% P.M.E. The urinalysis revealed a sp. gr. of 1.025, pH 5.5, was negative for albumin, glucose, and ketone bodies; no blood, the sediment contained no RBC., had 3 to 4 WBC. per hpF. and an occasional granular cast. Sputum cultures grew alpha Streptococcus and *S. faecalis*.

The patient was placed on a strict ulcer diet, magnesium aluminum (Maalox), Donnitol, meperidine (Demerol), Phenergan, glucose intravenously and chloramphenicol (Chloromycetin). Intermittent positive pressure breathing with Alveaire and isoproterenol (Isuprel) was begun on the 2nd hospital day. On the 3rd hospital day a second chest film showed some progression of the infiltrate on the right side. A skin test with PPD-2 on the 5th hospital day developed 17 mm. of induration and 21 mm. of redness. A skin test with coccidioidin was negative. Blood cultures at this time were negative. Penicillin was added to the regimen on the 9th hospital day. By the 12th hospital day the patient was asymptomatic and afebrile. However, one examiner reported decreased breath sounds at the right lung base and a chest x-ray at this time showed infiltrations in the right middle lobe with progression of the process into the right lower lobe. Bronchoscopy on the 17th hospital day revealed an obstructive lesion in the right bronchus just below the branch to the upper lobe. The lesion was considered to be either a tumor or an eroding lymph node. A biopsy of this area revealed lymphoid tissue with granulomatous, caseating inflammation and ul-

cerative bronchitis. Special stains were negative for pathogenic organisms. The bronchial wash was negative for malignant cells. A culture of the bronchial wash grew *B. aerogenes*, alpha Streptococcus and *S. faecalis*. A culture of the surgical specimen for fungi was negative. A bronchogram on the 18th day revealed filling of the right upper lobe bronchi and the bronchus to the superior segment of the right lower lobe. The remainder of the right lower lobe and the middle lobe did not fill. There was irregularity of the take-off of the superior segment.

The patient remained afebrile and an operation was performed on the 26th hospital day.

DR. J. B. WITHERINGTON: I would like to know if pelvic and rectal examinations were done, and if so, what the findings were.

DR. J. D. MASHBURN: Pelvic and rectal examinations are not recorded in the chart. For conference purposes we can assume that they were negative.

DR. WITHERINGTON: First, I will consider the pain in the left lower abdominal quadrant. This pain was aggravated by motion. No mention is made of any hernial protrusion. No mention is made of any evidence that this was musculo-skeletal pain. A barium enema was done which did not reveal any obstructive lesion in the colon nor did it reveal any diverticula. This does not entirely rule out diverticulitis of the colon, but it is relatively good evidence against it. The urinalysis was normal. An I.V. urogram was not reported, but I think we can assume that there was no kidney disease. We must also assume on the basis of Dr. Mashburn's comment that there was no adnexal or uterine disease. We wonder if she had some lesion in her abdomen in this vicinity that might have had expression in the chest such as a G.I. tumor with metastasis to the lungs. Or could this be something in the chest that also is involving structures in the abdomen as well? Certainly bronchogenic carcinoma can have extrapulmonary spread and metastatic disease. Tuberculosis can produce disease in the genitourinary system and the genital system as well. Histoplasmosis can involve the abdominal viscera and abdominal structures. However, the abdomen is not mentioned on this protocol after the first two paragraphs. I simply do not have enough information upon which to arrive at a proper conclusion regarding the etiology of

*From the Departments of Pathology and Medicine, Methodist Hospital, Memphis, Tenn.

the pain in the left lower quadrant of the abdomen.

We notice on the admission history that this patient had cough, fever and rales. She had a white count of 8,400 with 10% monocytes. A chest film showed a mottled inflammation in the right middle lobe. Sputum culture was obtained and produced organisms which, I think, would ordinarily grow in an obstructive lesion in the bronchus. After this, bronchograms and bronchoscopy were done; both revealing an obstructive lesion at the take-off of the right middle lobe bronchus and the superior segment of the right lower lobe bronchus. We know that the origins of these two bronchi are adjacent to each other and it would not take very much of a lesion to obstruct both. Biopsy of this area at bronchoscopy revealed a caseating granuloma with ulcerative bronchitis and a lymphoid tissue reaction. Culture and examinations of the bronchial washing were obtained. The same organisms, contaminating organisms, were obtained. When I say "contaminating" I mean organisms that come in behind an obstruction. Mycobacteria and fungi were not grown on the culture. No malignant cells were seen on the bronchial wash. A PPD-2 was done; a little unusual I would think to start with the strongest PPD we have, which is 250 times stronger than PPD-1 and fifty times more concentrated than the intermediate reaction. Suffice it to say, this patient had a 2+ to 3+ PPD which means that she had had some time in her life live tubercle bacilli in her body. Some writers think that if a positive tuberculin test is present, the patient still harbors live tubercle bacilli. I do not think, however, that this is generally accepted. She was skin tested with fungus material that is common to the southwestern part of the United States, coccidioidin. No mention was made whether she had ever lived "west of the Pecos," or visited there during a dust storm. No mention is made of any skin test of the respiratory fungus that we see in this part of the country. Is it known whether she did have a histoplasmin skin test or not?

DR. MASHBURN: It is not recorded.

DR. WITHERINGTON: The doctor that

took care of her must have been from west Texas!

The crux of this whole case seems to boil down to a differential diagnosis of a caseating, granulomatous lesion located in the right bronchial tree at the bifurcation of the right middle and right lower lobe bronchi. This produced obstruction with secondary infection behind it. The patient improved with antibiotics, but the lesion did not disappear. An operation followed which, I assume, was a thoracotomy.

Before I go any further, I would like to enlist the aid of the Radiology Department.

DR. DAVID S. CARROLL: The barium enema is negative. There is no evidence of diverticulitis. The upper G. I. series shows a hiatal hernia. The pyloric end of the stomach is narrowed. I have a feeling there is a little ulcer crater, on the lesser curvature here, but I'm not too sure about it. At any rate, I think the peptic ulcer disease, either now or in the past, and the hiatal hernia could be responsible for some of the abdominal symptoms.

The chest x-rays show a disease process in the right middle and right lower lobes. (Fig. 1.) The left lung is entirely free of



FIG. 1. The initial chest x-ray showing consolidation of the right middle lobe.

disease and the right upper is free of disease. You will notice two things about the lung lesions. First, there is absolutely no evidence of any significant hilar mass. Secondly, there is no chronic fibrosis in the

process. This appears like fairly acute inflammatory disease. Now you will notice of course, that the disease does not clear up as expected for a pyogenic pneumonia, but instead, it slowly progresses. You will notice that no pleuritis has occurred and that some fluid is present within a few weeks since the first film.

Because the disease progressed, it obviously became necessary to study this patient further to see if there was any underlying cause of this pneumonia. In the bronchograms we see no filling of the middle lobe bronchus, but there is a great deal of rather severe bronchiectasis involving the lower lobe bronchi on the right side.

Now, let us go into a little differential diagnosis from a radiologic standpoint. First of all, in respect to a bronchogenic carcinoma, I think it would be extremely unusual for a bronchogenic carcinoma to have been there long enough to obstruct the lower and middle lobe bronchi as this does without showing some semblance of a hilar mass.

This is not the behavior of a benign bronchial adenoma. These usually produce a complete atelectasis. Nor is this the picture of a chronic inflammatory lung disease with bronchiectasis, because there is no element of pleural fibrosis. So what is left? Precisely what Dr. Witherington has been discussing, that is an active granulomatous process.

DR. WITHERINGTON: I am glad to hear Dr. Carroll say that it is unlikely that this is a neoplastic disease. I do not feel that we have any real evidence for tumor. I have found, however, over the years that it is never safe to disregard bronchogenic carcinoma in any situation. But certainly, the sort of tissue that was obtained on the biopsy was that of a granulomatous inflammatory disease and was not that of neoplasia. I don't think that this was a bronchogenic carcinoma. Likewise, again, we have no evidence of a primary site anywhere else from which metastasis might have reached the lung.

Maybe I should not disregard Hodgkin's disease so quickly. Certainly Hodgkin's can produce a granulomatous lesion. It can be present in the thoracic lymph nodes and could possibly compress or invade the bron-

chus. Likewise, it could have abdominal expressions and, with involvement of the retroperitoneal lymphoid structures, account for some of the patient's pain that she had in her abdomen on admission. So it does afford an attractive possibility. However, this is not my number one impression. Smears of the peripheral blood rule out leukemia.

Sarcoidosis must be considered in any persisting lung disease that is unusual and that does not respond to ordinary chemotherapeutic measures. Sarcoidosis can involve lungs and nodes and produce visceral lesions. But it presents, as a rule, with a hilar adenopathy (the so-called "potato nodes"). In addition, a sarcoid lesion never caseates, cavitates or ulcerates. I believe we can disregard sarcoid disease.

Foreign body is a distinct possibility. We must consider aspiration of mineral oil with resulting inflammatory lipoid pneumonitis. The same thing can be seen from nose drops with an oil base. Since there is no history of aspiration, I will go on to other more common causes.

The infectious conditions that would produce this sort of lesion with obstruction and pneumonic disease distally belong to the mycobacteria and fungal groups. We know that the patient sometime in her life has had tuberculosis. Certainly, they can be harbored for many, many years in a lymph node. Then at some specific time the host's defense mechanism fails and the organisms spread locally, even produces an exudative sort of lung disease or bring about hemogenous spread. I do not think we have reason to consider the other more rare mycobacteria. Tuberculosis is certainly an extremely good possibility in this case.

I mentioned coccidiomycosis in passing, which could produce this type of lesion, but the skin test is negative and the patient's geographic history is not right for this diagnosis. I do not think we have enough facts to consider actinomycosis blastomycosis or nocardiosis. They produce a pyogenic reaction rather than a lymphoid caseating granuloma.

I cannot exclude histoplasmosis completely, but I would expect more calcifications in the chest films.

I think that of all the possibilities the

most likely one to produce this sort of caseating granulomatous lesion with ulcerative bronchitis in this area, and with pneumonitis behind it would be an old tuberculous focus that has become active.

DR. J. D. MASHBURN: Thank you, Dr. Witherington.

I would like to open the floor for discussion now. Would anyone like to make a point or offer another diagnosis?

A PHYSICIAN: Dr. Witherington, are you postulating that the abdominal pain is on the basis of tuberculous salpingitis?

DR. WITHERINGTON: I don't think the pathologist is going to be able to tell us what this abdominal pain was. I think we just have to say we don't know.

A PHYSICIAN: Dr. Witherington, you mentioned the possibility of a lipoid pneumonia. Do you think that this type of pneumonia would produce a fever?

DR. WITHERINGTON: Yes, it gives a chronic low grade inflammatory disease with fever. However, I do not believe the x-rays are typical for a lipoid pneumonia.

DR. CARROLL: I do not believe the x-rays suggest this type of lesion.

DR. MASHBURN: A thoracotomy was performed on this patient and the middle and lower lobes of the right lung were removed. The middle lobe was firm and noncrepitant. The pleural surface was moderately thickened with fibrinous adhesions. The lower lobe contained numerous small firm nodules. The cut surface of the middle lobe revealed extensive consolidation of the lung tissue. It had a light grey to pink color. This was firm and noncrepitant. The lower lobe was pinkish grey with scattered light grey foci of consolidation. We were asked to do a frozen section and we considered all sorts of possibilities, particularly along the lines of tumor. The first thing that came to mind was an extensive Hodgkin's disease involving an entire lobe. Metastatic adenocarcinoma lining the alveolar spaces can give a consolidating appearance like this. Then, of course, the diagnosis that most pathologists consider when they have a tumor producing consolidation of the lung and yet not distorting the overall architecture is the well known alveolar

cell carcinoma. Other possibilities were granulomatous infections and Wegener's granulomatosis.

The microscope resolved the issue. The lung tissue is wiped out with extensive necrosis and fibrosis. Chronic inflammation with macrophages, lymphocytes and Langan's type giant cells ring the area of necrosis. In the periphery of the consolidation we see small discrete granulomas with typical Langan's type giant cells. (Fig. 2.)

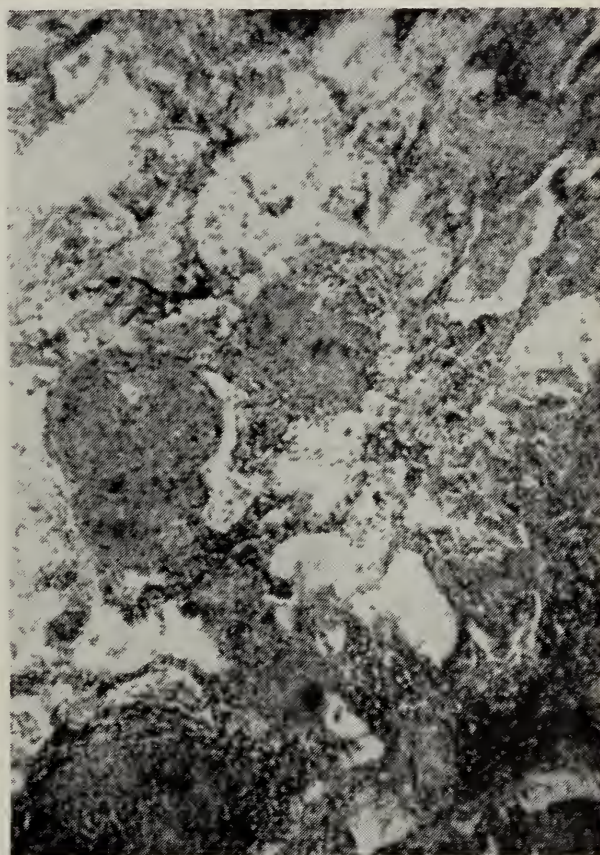


FIG. 2. A section of the right lung at the periphery of consolidation.

Special stains and cultures for tuberculosis were positive. Our final diagnosis is tuberculous pneumonia of the middle and lower lobes of the right lung. This is also referred to as "pneumonia alba." In the old days it was called "galloping consumption." I think that in this case the patient contracted the tuberculosis years ago, then developed a smoldering tuberculous lymphadenitis in this area which eventually eroded into the bronchial wall producing a tuberculous ulcerative bronchitis. Then this process seeded out into the alveoli of the mid-

dle lobe and gave her an acute tuberculous pneumonia. This is our concept of the pathogenesis of this particular case.

We thought it would be good to show this just to remind all of us that tuberculosis is still with us and that it remains a real problem. I just looked up some Public Health

statistics today. We are told that even now 10 persons out of every 100,000 in our country die with tuberculosis. It is still among the ten leading causes of death.

Final Anatomic Diagnosis: Tuberculous pneumonia of the middle and lower lobes of the right lung.

* * *

MITRAL STENOSIS. James C. Dahl, M.D., Paul Winchell, M.D., and Craig W. Borden, M.D. *Arch. Int. Med.* 119:92, 1967.

The authors discuss the results of closed mitral valvulotomy for the treatment of symptomatic mitral stenosis. They had a series of 100 cases in which operations were done between June, 1950, and September, 1953. Of these 100, 3 fell into Class I, 23 in Class II, 57 in Class III, and 17 in Class IV. The operative mortality was 9%. Five of the deaths occurred in the Class IV group, giving an operative mortality of 27% for this group. They were interested in the effect of this operation on the natural history of mitral stenosis and an evaluation of the factors influencing survival after surgery.

The factors influencing the postoperative mortality were:

(1) Age and sex. The average age at the time of surgery of the treated group was 38 years, whereas the average age for those who did not survive more than 12 years was 47 years of age. Of the male patient population in the group, 77% failed to survive for a period greater than 12 years. Sixty-three percent of the male patients had associated calcific valvular involvement. It was thought this was perhaps the factor influencing the failure to survive.

(2) A second important factor was the presence or absence of valvular calcification. In the patients without calcium in the valve, 68% survived after 12 years, and only 16% of those with calcified valves survived for at least 12 years. They felt, therefore, that calcium is the hallmark of a severely damaged valve and closed surgical approaches will not result in satisfactory improvement in such cases.

(3) The next factor of importance was atrial fibrillation. They noted that the duration of atrial fibrillation prior to operation was longer in the group that failed to survive for 10 years. To

them, this suggested that fibrillation indicated not only longer duration of disease, but perhaps also increased severity of the rheumatic process.

(4) Another factor involving survival was heart size. A 34% mortality rate after 5 years occurred in patients with enlarged hearts. Congestive heart failure also showed an effect on the survival rate of patients. After 3 to 5 years, those who had had congestive heart failure declined much more rapidly than those who did not have heart failure prior to operation.

(5) Complicating valvular disease, primarily aortic valvular disease, undoubtedly played an effect on survival rate, inasmuch as 55% of the late deaths were in patients who had multiple valvular involvement and may well have played a dynamic role in the development of cardiomegaly, congestive failure, and death.

(6) A very interesting factor was pulmonary hypertension. They noted that patients with the most severe pulmonary hypertension seemed to do as well or better than some of the patients with much lower pressures. The best results often occurred in such patients because the symptoms and signs were primarily due to mechanical mitral valve block, and were not necessarily related to low cardiac output secondary to myocardial damage or complicating aortic valve disease.

In summary, calcification of the valve, cardiomegaly, atrial fibrillation, multiple valve involvement, and congestive heart failure all adversely affected survival rates. However, elevated total pulmonary vascular resistance and vascular changes noted at operation did not correlate with survival. Thus, their conclusion was that the finding of high pulmonary resistance need not contraindicate surgery. Their studies also indicated that residual functional mitral stenosis still existed in the great majority of the patients restudied after a period of 10 years. (*Abstracted for the Middle Tennessee Heart Association by Milton Grossman, M.D., Nashville*)

From the
Executive
Director
E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Social Security Amendments Intro- duced—Medicare Title XVIII

● Ways and Means Committee Chairman, Wilbur Mills, (D., Ark.) introduced H.R. 5710, the Social Security Amendments of 1967, which in its 164 pages contains numerous amendments to the Social Security law, including Medicare. Among changes in the Law, it would extend Medicare to the disabled; enable federal facilities to receive Part A payments; include non routine podiatry services under Part B; increase the membership of the National Medical Review Committee from nine to sixteen members (committee was authorized by P.L. 89-97); required depreciation allowances for hospitals and other facilities be made only if the provider uses them for proper capital expenditures as determined by the State planning agency; establishes a new "Part C" under which reimbursement, without deductible or co-pay, would be made for specialty services furnished to hospital inpatients, and would transfer all outpatient hospital services to the Part B program, with reimbursement subject to the present annual \$50 deductible and 20% co-pay features; eliminate requirement of physician certification under Part A; pay for durable medical equipment (presently limited to rentals) under Part B; reimburse state agencies for consultative services provided to independent laboratories; and delete present limitation on the reduction of 90 days of inpatient hospital services for individuals with mental disease or TB.

Proposals Under Title XIX

● Among the many amendments proposed are: states would have the option of receiving federal participation in the full cost of institutional care or services of individuals certified by the physician to require skilled nursing home care when providing these services in other appropriate institutions or in the patient's home; an income limitation effective after December 31, 1967, under which no payment could be made to individuals of families whose income exceeds by more than 50% the highest income standards used by the state in determining eligibility under the cash assistance program; an amendment which in theory coordinates Title XIX with Part B of Title XVIII under which states would be allowed to "buy in" for their MAA people, but if they choose not to, federal matching would not cover expenditures for services had the individual been enrolled under Part B; an amendment which would permit states to "buy in" to Part B for its over 65 beneficiaries without providing comparable services for the other Title XIX recipients; authorizes the payment of 75% of the administrative cost of the medical program whether incurred directly by the administering agency or others; the establishment of a 21 man advisory committee on Title XIX; a requirement which would guarantee an individual under Title XIX free choice of physician and facilities; a provision that calls for beginning July 1, 1967, under the crippled children's program, an early identification through periodic screening of the need for care and services and for the provision of care and treatment of defects and chronic

conditions; and a broad expansion of appropriation authorizations for the various individual programs now under Title XIX. Among other changes in the funding of Social Security, the bill calls for an increase in the taxable wage base from \$6,600 to \$7,800 in 1968, \$9,000 in 1971, to \$10,800 in 1974 and with small increases in the tax rate in order to meet increases in cash benefits. Hearings were conducted on the bill that took up practically all of the month of March.

TMA Policy on Fees

● Only "usual and customary fees" should be accepted. That's the policy the Tennessee Medical Association wants its members to follow when dealing with any private or governmental agency. To emphasize its stand, the Association refused in May, 1966, to renew its contract with the Department of Defense for coverage of military medical care beneficiaries because the agency involved refused to depart from its demand for a fixed fee schedule.

Tennessee Population Up 9%

● Tennessee's population now totals 3,883,000, an increase of nine percent over the 1960 figure, according to the regional office of the Census Bureau.

The population increase during the past six years already has surpassed the increase for the entire decade between 1950 and 1960. The figure is 315,900 higher than the official 1960 count of 3,567,089.

Out of every 100 Tennesseans, 10 are under five years of age, 26 are between five and seventeen, 35 are between eighteen and forty-four, 20 are between forty-five and sixty-four, and 9 are sixty-five or older. The Census Bureau did not report population figures for cities or counties.

Doctor Shortage

● About 11,000 doctors a year are needed to meet the demand for physicians in America. Only 7,574 were graduated last year in U.S. medical schools. Another 1,500 come to the United States each year from foreign medical schools, according to the Association of American Medical Colleges.

Commercial Directory Listings

● Listings in commercially sponsored advertising directories, except for the yellow pages of telephone directories, are unethical, the AMA Judicial Council has ruled. Also disapproved are listings in community directories other than areawide or university non-commercial telephone books or medical directories.

AMA Advertising Program

● An institutional advertising program "designed to create a climate of opinion favorable to private physicians" has been approved by the AMA Board of Trustees. AMA Board minutes describe the campaign as explaining "the positive program benefitting the public." When initiated, the advertising will be the first since the Eldercare campaign.

Income Tax Records

● MEDICAL WORLD NEWS in a recent article, points to the U.S. Supreme Court ruling wherein income tax records should be preserved permanently in cases that permit revenue agents to investigate records beyond the statute of limitations. The IRS does not have to show probable cause to suspect fraud in order to examine any data relevant to a taxpayer's tax liability. The burden of showing that the demand is unreasonable is on the taxpayer, and he can no longer meet it simply by claiming protection under the statute of limitations.

Public Service

THE TENNESSEE TEN

Hadley Williams, Assistant Executive Director

Hart Bill Hearings

● Nationwide publicity has been generated by S. 260, a bill introduced by Senator Philip A. Hart (D. Mich.), and commonly referred to as the "Medical Restraint of Trade Act."

Referred to the Senate subcommittee on Antitrust and Monopoly, public hearings have been conducted during the months of February and March.

The legislation would forbid physicians from owning drug stores, dispensing eyeglasses, owning interests in drug repackaging companies and selling items they prescribe.

Dr. James Z. Appel, immediate past president of the AMA, testified on behalf of the AMA on March 1st. Dr. Appel stated that "the physician should not be able to coerce a patient to buy prescription drugs or devices from him or from any designated pharmacy or supplier."

"Neither, however, should the patient be coerced by law to buy from the single pharmacy in his community or neighborhood," he said. Dr. Appel pointed out that the proposed legislation would give to pharmacists and others involved, in the dispensing of drugs and devices, "a virtual monopoly." He said the exploitation of patients becomes greater if any one seller has a monopoly, or if competition is restricted.

"Physicians do not compound drugs, nor do they grind lenses. They employ people who are qualified and licensed, where necessary, to do this expert work for them. A pharmacist is educated to know the biochemical effects of drugs, and the individual effect in any given patient is unique. It is the physician who must observe the . . . effect of drugs on patients, not the pharmacists," Dr. Appel said.

"I believe, and the AMA believes," he said, "that the interest of the patient comes before the interest of anyone who serves him."

Among the groups testifying in favor of the legislation were the American Pharmaceutical Association, National Association of Retail Druggists and National Farmers Union. The American Association of Ophthalmology presented testimony in opposition to the bill, as well as the AMA.

Medicare Hearings Continue

● The House Ways and Means Committee continues to hold hearings on H.R. 5710, the Social Security Amendments of 1967. The position of the AMA was given by President Charles L. Hudson, M.D., in early April.

Testimony received by the committee during March included the College of American Pathologists who supported the proposed new "part C" under which reimbursement, without deductibles or co-payment, would be made for specialty diagnostic services furnished to hospital in-patients.

The American Optometric Association recommended to the committee that optometric services be included as a medicare benefit without, however, the current necessity of referral by physicians. The American Podiatry Association recommended the inclusion of podiatry services as a medicare benefit and expressed a desire to have them extended in a manner so as to place podiatry on a par with physicians under the definitions of P.L. 89-97.

National Conference on Rural Health

● The 20th National Conference on Rural Health was conducted in Charlotte, N.C. March 10-11.

The purpose of the program presented was to more fully understand the inter-dependence of rural and urban areas for the improvement of the health of the people; to develop methods to plan for and utilize more efficiently health manpower resources; to discover and be able to implement the utilization of community health resources; and to assess the effect of environmental factors on the health and well-being of people, with emphasis on first aid instruction and improved rural emergency medical care.

Dr. Alvin J. Ingram of Memphis, a member of the AMA Board of Trustees and Committee on Manpower, was a featured speaker at the meeting, which attracted more than 500 persons.

General Assembly Back at Work

● The 85th Tennessee General Assembly has now settled down to work on a variety of major items of legislation, including an increase in the state's budget in excess of \$131 million for the biennium.

The administration's 13 suggested tax sources to raise the necessary revenue has received a great deal of attention from legislators.

Items affecting medical care and physicians who render the care have also been introduced. TMA sponsored legislation includes a proposal to provide immunity from liability for physicians who serve on hospital utilization review committees; a strengthening of laws that pertain to motorcycles and their operation; an amendment to the Mental Health Law to allow for a physician's affidavit or deposition to be taken in commitment cases with the consent of the patient or his counsel; and a proposal calling for the testing of Phenylketonuria (PKU) in newborns at the discretion of the attending physician.

Strongly opposed by TMA is H.B. 255 which would make physicians subject to subpoena to give evidence for proof by deposition. The bill would remove the right of physicians to claim exemption which is currently provided for attorneys and physicians.

First Aid Station Operation Smooth

● The jointly sponsored TMA-Tennessee Hospital Association first aid station at the Capitol has received the applaudets of many members of the General Assembly.

The station is being staffed by a volunteer TMA member each day and a registered nurse provided by THA.

Dr. W. A. Crosby, of Dickson, never imagined that on the day he volunteered to serve (March 15th), the President of the United States would deliver a major policy address to members of the Tennessee General Assembly. The unprecedented appearance of President Johnson created a flurry of activities which strained the facilities at the Capitol.

Welfare Drug Program Grows

● A report published by the Tennessee Department of Public Welfare shows that a total of 594,960 prescriptions were filled at the Department's expense for Old Age Assistance and Medical Aid for the Aged recipients during the last fiscal year. The total cost for the prescriptions amounted to over \$2 million.

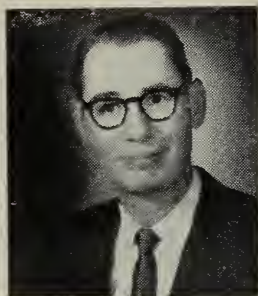
The TMA Advisory Committee to the Department of Public Welfare meets twice yearly to review the drug formulary utilized by the Department for additions or deletions.

AMA Convention Schedules

● The 1967 AMA annual convention will be in Atlantic City, New Jersey on June 18-22. The Clinical convention will be held in Houston on November 26-29.

Future dates and cities for both annual meetings are as follows: 1968: San Francisco, June 18-20 and Miami Beach, Fla., December 1-4; 1969: New York, June 22-26 and Denver, November 30-December 3; 1970: Chicago, June 21-25 and Boston, November 29-December 2.

President's Page



DR. HUBBARD

It has been twelve months since I assumed the office of President. My term as the titular head of this Association has ended.

I have appreciated the honor that was bestowed upon me in permitting me to serve as your President. Meeting many physicians in nearby states and exchanging philosophies and ideas with them has indicated to me that there is still hope for our profession to remain free in the new social order. We need to create a more imaginative and forceful image of our profession. We should clearly define our philosophy, our motives, and our objectives to the point that we need not be afraid of outside pressures. Only the medical profession can provide the services needed to supply the health care needs of this Country. Not even those who would destroy our profession, or those willing to reap temporary gain and recognition by the abandonment of the principle of private medical care and free enterprise, can provide these services except with the assistance of a waivering majority.

If change is needed, we should not be hasty to change because of the pressures of social planners or government agencies. We must stand ready to make adjustments only after careful study and review clearly indicates that such change is needed to better the health care of our patients. We cannot bury our heads in the sand, neither should we plunge into a new program without careful deliberation and study.

Improved mechanisms for implementing policy demand improved mechanisms for making policy. Such mechanisms need the best efforts and study by our House of Delegates.

Another major problem that is ever with us is communication. Great volumes of printed and oral material flow out from the various headquarters of medicine at the county, state and national levels. The efforts to communicate "from the top down" are tremendous, if not always effective. But communication must be a two-way street. Many doctors are escaping their responsibility to communicate with their patients by a policy of non-involvement. The proper setting of policy is everyone's business in a democratic society. Study the problems, form an opinion on them, and let it be heard.

My sincere best wishes go to our new officers. I know them to be capable and conscientious. I would ask your unqualified support for them in the year and years to come. Let us join together in shaping the evolution of modern American medicine, the best the world has ever seen.

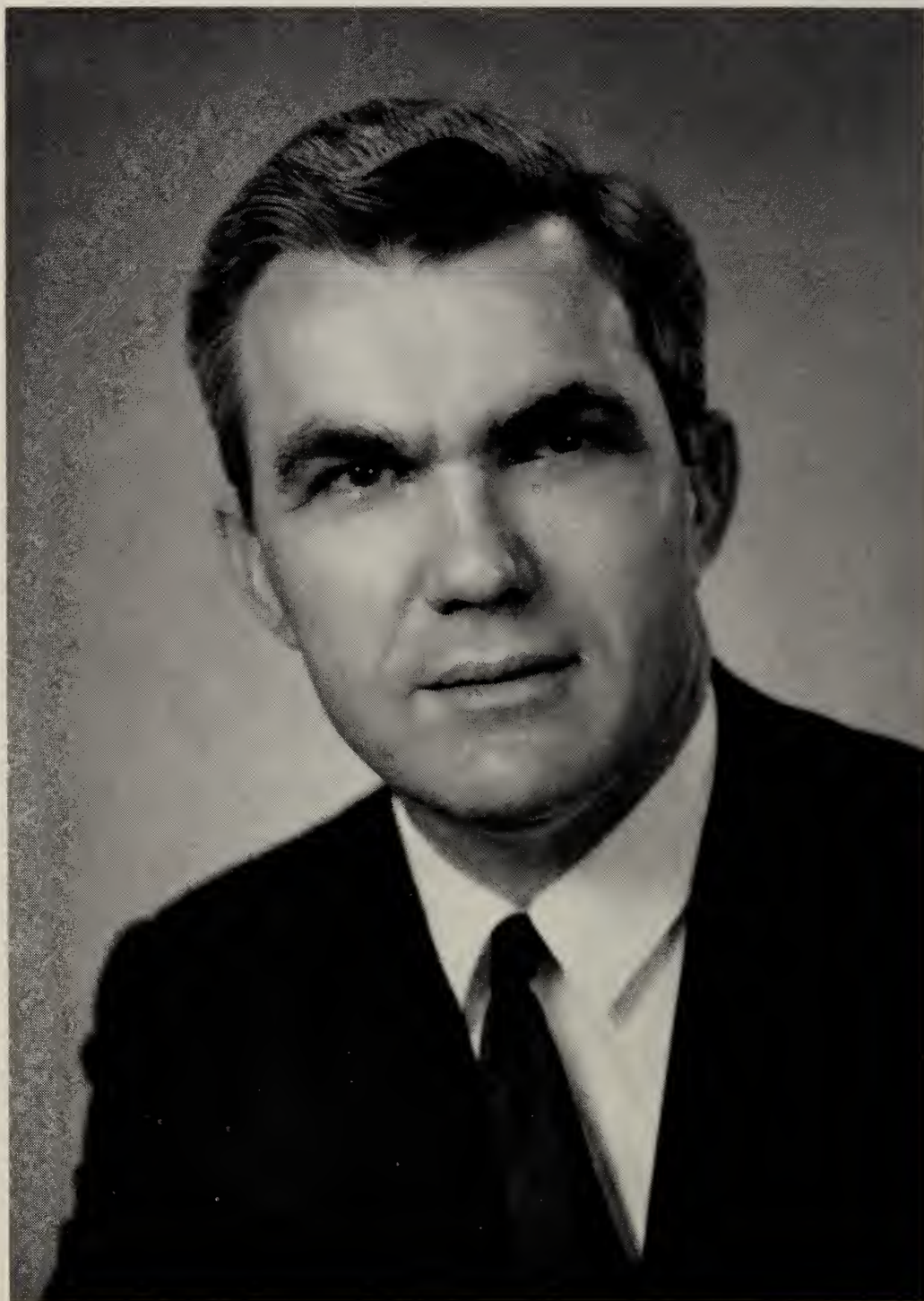
Since this is my final message to you in the President's Page, I am grateful to those who have expressed their support of our efforts. For those of you thinking otherwise, I can only say that all of my efforts and actions as President, were based upon policy adopted by the House of Delegates and your elected Trustees.

Sincerely yours,

A large, stylized cursive signature that reads "B. Hubbard". The signature is written in dark ink and has a long, sweeping underline that extends to the right and then curves back under the word "President".

President

THE NEW PRESIDENT



KENNETH M. KRESSENBERG, M.D.

PULASKI

KENNETH M. KRESSENBERG, M. D.

79th President, Tennessee Medical Association

ALTHOUGH a native Tennessean, Kenneth M. Kressenberg spent a large portion of his life in the Lone Star State, which accounts for the nickname of "Tex." Born September 5, 1922, in Memphis, Dr. Kressenberg was graduated from high school in Texarkana, Texas, in 1939. Soon thereafter he entered the United States Army, serving from 1940 to 1945. His duty included overseas assignments as a surgical technician with the 36th Infantry Division in Europe.

Upon completion of his military service, Dr. Kressenberg returned to Tennessee and entered Southwestern University to pursue a pre-medical curriculum. In 1947 he entered the University of Tennessee College of Medicine, earning his MD degree in September, 1950.

Dr. Kressenberg continued his training by returning to Texas and completing a rotating internship at Jefferson Davis Hospital in Houston. For a brief period he entered private practice in Wharton, Texas, but Tennessee beckoned once more.

Nashville became Dr. Kressenberg's home in December, 1952, while he was a medical resident at St. Thomas Hospital. In 1953 he began private practice in Pulaski with two former classmates and, except for a two-year surgical residency at the Memphis Veterans Hospital, has made Pulaski his permanent home.

Dr. Kressenberg has been active in civic, church and voluntary health agency work. He has served as chairman of both the Giles County Red Cross Program and the Regional program in Nashville. He has devoted more than ten years with both the local and state Tuberculosis and Health Associations, serving as a member of both Boards of Directors. For the past three years he has been chairman of the Giles County TB Christmas Seal campaign.

He is past-president of the Pulaski Elks Club and is a member of the Rotary Club. Dr. Kressenberg is a member of the Board of Stewards of the First Methodist Church in Pulaski and he has for many years taught a church school class for young people.

Dr. Kressenberg has held all offices in the Giles County Medical Society, and recently completed a two-year term as Chief of Staff of the County Hospital. He has been active in the Tennessee Academy of General Practice, having served as a member of the Board of Trustees and as vice-president.

An active member and chairman of several committees of the Tennessee Medical Association, Dr. Kressenberg served three years as a member of the TMA Board of Trustees prior to his election as president-elect.

An ardent golfer, he also devotes time to reading ancient history and archeology. Dr. Kressenberg is an active member of the American Society of Clinical Hypnosis, and is on the Board of Directors of Citizens for Court Modernization, an organization which is seeking to modernize the judicial system of the State of Tennessee.

He was married to Miss Martha Berniece Wiggins of Memphis eighteen years ago and they have three children—two sons, 14 and 8 and a daughter, age 12.

There are 39,600* undetected diabetics in Tennessee

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

Why Wait?



*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.



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Devoted to the Interests of the Medical Profession of
Tennessee

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-4211, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn.

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APRIL, 1967

EDITORIAL

SPECIALLY TRAINED NURSES FOR CORONARY CARE UNITS

Probably 7,000 to 10,000 people sustain acute myocardial infarctions in the United States each day and more than 1500 deaths occur daily from this one cause. These are incredible numbers and are unlike those of any other disease. The average mortality from acute myocardial infarction of patients reaching the hospital is about 30 percent. Approximately 47% of these fatalities are due to arrhythmias and Zoll showed that arrhythmic deaths are preventable by defibrillation. Finally, 70% of all deaths occur within the first five days of admission.

These statistics were considered by those responsible for the development of the concept of the coronary care unit, notably Meltzer of Philadelphia. He combined a method of continuous electrocardiographic monitoring with a prepared system for terminating ventricular fibrillation and ven-

tricular standstill. Thus, the coronary care unit was born.

Since it was clear that physicians could not remain with patients constantly, nor could they reach the bedside from elsewhere in the hospital quickly enough to prevent an arrhythmic death, it became obvious that the nurse must be the key to the system. She must be responsible not only for electrocardiographic monitoring, but more significantly, the nurse herself must frequently initiate the treatment program of defibrillation and pacemaking. The success of this system is due to the remarkable competency of nurses placed in charge of intensive care units.

Training such nurses in the special skills necessary to prevent arrhythmic deaths as well as to manage the patient ill with a myocardial infarction is vital. Wald and his associates describe in this issue of the JOURNAL a course conducted at Baptist Hospital in Nashville for the training of graduate nurses for coronary care units.

This training course consisted of a two week didactic lecture series emphasizing the science and theory of cardiology, in addition to electrocardiography, recognition of arrhythmias, cardiopulmonary resuscitation and the use of monitors, the defibrillator and the pacemaker. The final examination given these nurses on completion of this two weeks would pale most medical students and practicing physicians. Following completion of the lecture course, the nurses spent a third week of supervised practical training in a functioning coronary care unit.

It is hoped that other courses to train nurses for coronary care units will be held in the near future. Whether these courses should be given in one or two central locations or whether they should be given in various sections of the state is unanswered. Certainly many more nurses must be trained and develop competence in these necessary special skills.

This partnership of nurse and physician will certainly save many lives. It is exciting to speculate for the future how specially trained nurses working in close partnership with physicians may tackle successfully other medical problems.

IN MEMORIAM

Brading, Edward T., Johnson City. Died 7, February, 1967, Aged 69. Graduate of Harvard Medical School, Boston, 1923. Member of the Washington-Carter-Unicoi County Medical Society.

Hobson, Joel J., Memphis. Died 22, February 1967, Aged 81. Graduate of Vanderbilt University School of Medicine, 1910. Member of the Memphis-Shelby County Medical Society.

Coleman, Frederick D., Clarksville. Died 21, January, 1967, Aged 46. Graduate of Meharry Medical College, 1944. Member of the Montgomery County Medical Society.

Carpenter, John D., Johnson City. Died 18, February, 1967, Aged 86. Graduate of University of Louisville School of Medicine, 1905. Member of the Washington-Carter-Unicoi County Medical Society.

Baker, Robert Henry, Knoxville. Died 8, February, 1967, Aged 67. Graduate of Vanderbilt University School of Medicine, 1925. Member of the Knoxville Academy of Medicine.

Warren, John B., Kingsport. Died 7, February, 1967, Aged 61. Graduate of the University of Tennessee College of Medicine, 1933. Member of the Washington-Carter-Unicoi County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

Congressman William E. Brock, III, was guest speaker at the dinner meeting of the Chattanooga-Hamilton County Medical Society on April 4th.

The Society has expressed its concern over air pollution in the Chattanooga area and appointed a committee to "offer such help as it is capable of giving in defining the problem and with other concerned individuals and responsible groups in finding sensible and effective solutions." The committee is composed of Dr. L. Spires Whitaker, Chairman; Dr. David P. Hall, co-chairman, and Drs. George G. Young, Harry A. Stone, Joseph W. Johnson and Paul V. Nolan. Dr. Whitaker and Dr. M. F. Langston were participants in a television program on air pollution entitled "Beware the Wind" on February 21st. The film, produced by the George Washington University, Airlie Cen-

ter, Warrenton, Virginia, was narrated by Robert Preston and ranges from Fairbanks, Alaska, to Venice, Italy, in its comprehensive presentation of the problem.

Memphis and Shelby County Medical Society

Dr. Irvine H. Page of Cleveland, Ohio, eminent specialist in heart and blood vessel disease, addressed the Society at its monthly meeting on February 7th. Dr. Page, senior consultant in the research division of the Cleveland Clinic Foundation, discussed the nature and treatment of high blood pressure. He is a past president of the American Heart Association and has won numerous awards for his cardiovascular research, including the Albert Lasker Award, Distinguished Service Award from the AMA and the American Academy of Achievement Award. Dr. Page was a co-discoverer of several blood substances of special significance. When only 27, he headed the chemical division of Munich's great Kaiser Wilhelm Institute where he was among the first to be vitally interested in the chemistry of the brain. The program, sponsored by the Memphis Heart Association, was held in the auditorium of the Institute of Pathology, University of Tennessee.

The scientific program for the meeting of the Society on March 7th was presented by Dr. James N. Thomasson of Nashville and Mr. Paul Jessen, Jr. The presentation entitled, "Evaluation of Disability" was followed by a session of the House of Delegates.

Knoxville Academy of Medicine

Members of the Knoxville Academy of Medicine heard an interesting presentation entitled "Medical Management of Dissecting Aneurysms" by Dr. James J. Acker at its regular monthly meeting on February 14th. The meeting was held in the Academy of Medicine Building.

Dr. Hugh Blake, Chief of the Department of Surgery, U. T. Memorial Research Center and Hospital, was guest speaker at the meeting of the Academy on March 14th. His presentation was entitled "Misconceptions in Surgery."

A caucus of the delegates and alternate delegates to the Tennessee Medical Association followed the scientific meeting.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The Department of Health, Education and Welfare stated in a special report that both hospital charges and physicians' fees increased sharply last year. A continued increase in health care costs was predicted in the report ordered last August by President Johnson.

Drugs were not a significant factor in the recent accelerated increase in health care prices, the report said. But it added that "drug prices are higher than they would be if there were more vigorous competition at either the manufacturing or drugstore level."

As for the two major components in the Medical Care Index, the report said: Physician's fees, which had been rising about 3 percent a year in 1960-65, went up 7.8 percent in 1966—the biggest annual increase since 1927. Hospital daily charges, rising about 6 percent a year between 1960 and 1965, went up 16.5 percent in 1966—the largest annual increase in 18 years.

The increase in doctor fees was attributed to a combination of basic factors: more people are seeking doctors' services more often and the number of active physicians is increasing relatively slow. The study found no evidence that Medicare, which went into effect last July 1, was a major factor in the rise in doctors' fees.

The increase in hospital charges was attributed largely to rising wages, which account for two-thirds of hospital costs, and increases in the price of things hospitals buy. The wage rise has not been off-set by increased productivity, the report said, and rising standards of care in hospitals have required more expensive equipment and facilities.

Meantime, Robert J. Myers, the Social Security Administration's chief actuary, told the House Ways and Means Committee, that hospital costs had risen much faster than the Administration anticipated since the Medicare plan went into effect. If they

continue their upward spiral, the costs will eat away the safety margin included under the Medicare financing plan, Myers said.

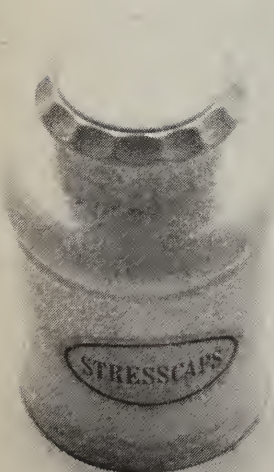
The HEW report held out little hope for an early end to medical price increases. However, it recommended a series of actions "to slow down these increases and to promote the efficient use of medical care resources." Recommendations in the report included: Comprehensive community health care systems should be developed, demonstrated, and evaluated . . . Group practice, especially prepaid group practice, should be encouraged . . . Private and public health insurance plans should be broadened to include more alternative types of medical care . . . States should move quickly to establish and support strong health planning agencies at the state and local levels . . . Cost-reducing methods of reorganizing the delivery of services in hospitals and other providers of health services should be developed, demonstrated, and implemented . . . Federally supported health care programs should be used to train physician assistants, evaluate their performance, and disseminate the results . . . Federal funds available under the Health Professions Educational Assistance Amendments of 1965 should be used to support and encourage innovations in health professions' education and training which promote the efficient practice of medicine . . . HEW should undertake an intensive examination of frequently prescribed drugs to assess the therapeutic effectiveness of brand name products and their supposed generic equivalents . . . The Food and Drug Administration should provide doctors with authoritative information of the efficacy and side effects of all drugs . . . The HEW should call a national conference of leaders of the medical community and public representatives to discuss ways to improve the quality and efficiency of medical care delivery.

To carry out the recommendations in the report and allied directives from Johnson, HEW Secretary John W. Gardner said he would take a number of actions, including establishment of a National Center for Health Services Research and Development and calling of a national conference on medical care costs.



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The American Medical Association contends there is not sufficient justification for a federal law that would ban dispensing of drugs and devices, such as eyeglasses, by physicians.

Dr. James Z. Appel, immediate past president of the AMA, outlined the AMA position in testimony before the Senate Antitrust and Monopoly Subcommittee which held hearings on such legislation (S.260) introduced by its chairman, Sen. Philip A. Hart (D., Mich.).

The legislation appeared to stand little chance of being approved by Congress, at least this year. Hart has unsuccessfully pushed similar legislation for the past few years.

The AMA believes that "federal legislation cannot be justified unless there is a compelling need," Appel testified. In this case, he said, "such a need does not exist."

"Organized medicine looks upon dispensing as neither immoral nor unethical in and of itself. Organized medicine believes—and the medical practice laws of the states confirm—that dispensing drugs and devices is a privilege granted to physicians in order that they may best serve the public interest. American medicine condemns any abuse of privileges. But the bill under consideration would withdraw the privilege entirely, regardless of its benefits for the many, because it is abused by the insignificant few."

MEDICAL NEWS IN TENNESSEE

Tennessee Health Careers Program

The Tennessee Hospital Education and Research Foundation, Inc. has employed the Community Service Bureau of Dallas, Texas, to initiate a fund raising development study for the health careers program of Tennessee. It is anticipated that the results of the study will provide the program with funds to enlarge the Health Careers staff with full-time personnel to carry on an active program in the various areas of Tennessee, to assist new Health Career Students with loans and grants, to promote an understanding with the public of the need to provide additional personnel in the health fields, to encourage the organization

and initiation and additional health education programs in colleges and universities and to sponsor workshops and programs in health careers.

The Health Careers Program is sponsored and supported by the Tennessee voluntary medical and health organizations. The Tennessee Medical Association and other medical organizations have endorsed and contributed to the support of this program. There is an immediate need to sell top leadership in business, industry, banking and other allied medical professions on the necessity of their active participation in a program that can assist in alleviating the current shortages of trained professional and technical personnel in all hospitals and other medical facilities.

As a part of the health team, your active support is needed to convey the objectives of this program to all walks of life in Tennessee to insure the continuation of adequate health for the citizens of the state.

Senior Citizens Conference

Approximately 500 persons from 35 Middle Tennessee counties attended a special one-day conference entitled, "The Elderly in Tennessee," on February 23rd at the Knowles Center for Senior Citizens in Nashville. The conference, sponsored jointly by the Metropolitan Nashville, Tennessee Commission on Aging, Tennessee Medical Association, Senior Citizens, Inc. and Vanderbilt University, was designed to present trends, methods, and techniques for creating new and expanded services for the aged. It was the first of four slated to be held during the year.

Among the noted speakers at the conference were Drs. Thomas F. Frist, J. William Hillman, and Otto Billig, Nashville.

2.8 Million Covered in Tennessee

More than 2.8 million Tennesseans were covered by hospital expense insurance at the end of 1966, according to the Health Insurance Institute. The Institute reported that 340 health insurance companies operating in the state covered a total of 2,894,000 persons at the year's end. Of that number, 805,000 had major medical expense insurance.

Meharry Medical College

Nobel Laureate Andre F. Cournand was a guest lecturer at Meharry Medical College on February 21st. The lecture entitled "Pulmonary Circulation in Normal Man and Cardiopulmonary Diseases," was sponsored by the Davidson County Anti-Tuberculosis Association and the Internal Medicine Department at Meharry.

Dr. Cournand was a 1956 co-recipient of the Nobel Prize for Medicine and played an important role in developing the widely used diagnostic technique of cardiac catheterization. He is emeritus professor of medicine and former director of the Cardiopulmonary Laboratory of Columbia University at Bellevue Hospital in New York. He is presently a member of the Administration of the Institute for the Study of Science in Human Affairs at Columbia.

Vanderbilt University School of Medicine

Dr. John H. Gibbon, Jr., developer of the heart-lung machine and one of the world's leading cardio-pulmonary surgeons and authorities on lung cancer, delivered the 15th annual Barney Brooks Memorial Lecture on February 24th in the Vanderbilt Hospital amphitheater. Dr. Gibbon is the holder of the Samuel D. Gross professor of surgery and chairman of the Department at Jefferson Medical College, Philadelphia. The Brooks lecture series is financed anonymously by a former pupil of the late Dr. Barney Brooks, professor of surgery at Vanderbilt from 1925 until 1951, a year before his death.



The Muscular Dystrophy Association has awarded a \$9,072 grant to Dr. Jane H. Park, associate professor of physiology at Vanderbilt University, to continue research in this field. This is the 11th year that the Association has supported Dr. Park's project on enzymes and proteins which produce energy used in muscular activity.

University of Tennessee College of Medicine

Construction is scheduled to begin this spring on a \$7,000,000 project at U.T. Medi-

cal Units in Memphis. The project includes two buildings, a \$3,000,000 student center and a \$4,000,000 mental retardation center. The two buildings mark the beginning of a \$16,000,000 capital improvement program planned during the next four years. The program has been approved by the U. T. Board of Trustees however actual construction will be governed by legislative appropriations.



The Medical Research Center and Department of Biochemistry in Knoxville have received grants totaling \$265,381 for cancer research. The American Cancer Society presented \$209,953 to five scientists and the U. S. Public Health Service awarded \$55,428 to Dr. Robert E. Dougherty for research. The five who received the grants from the Cancer Society are: Drs. Alan Solomon, Carmen B. Lozzio, K. J. Monty, Paul Wigler and Bennett Horton.

The American Cancer Society has also awarded a grant of \$37,927 to Dr. Jason L. Starr, associate professor of medicine at the Medical Units in Memphis, to finance an exploration into certain facets of cell growth. Dr. Starr and Dr. E. Ann Rush, a postdoctoral research fellow of the USPHS who will serve as co-investigator, will seek to determine possible relationships between production of anti-bodies and cell growth. The official title of the study which began March 1st is "Mechanisms and Control of Antibody Synthesis."



A quarter-million-dollar endowed chair will be established in honor of the late Dr. George T. Wilhelm, a medical college alumnus and longtime UT administrator. An anonymous donor has made an initial gift of \$26,000 in securities, with additional pledges made to bring the gift eventually to the level of a \$250,000 endowment. The endowment will be invested and the annual income will support or supplement the salary of the teacher who holds the George T. Wilhelm Chair of Medicine. The Chair will memorialize the physician-surgeon who for 27 years directed the student health program and was the "father" of the U. T. Memorial Research Center and Hospital in Knoxville.

The ever-expanding scope of medical research, much of which is evidenced in the form of increasing support by government health agencies, is graphically illustrated by what has happened at the University of Tennessee Medical Units in the past few years.



Dr. I. Frank Tullis (right) program director, and Dr. James R. Givens, assistant program director of the Clinical Research Center, University of Tennessee Medical Units, Memphis. They share the responsibility of directing clinical research activities under the program launched in July, 1965.

As 1967 gets underway, medical research for the first time represents the largest single area, dollar-wise, among research programs conducted by the various divisions of the University. Up to the year just ended, agricultural research led the totals. Last year, however, the dollar-value of research at the Medical Units climbed to \$5,161,630, compared to \$4,891,000 for agricultural research programs. Both make up the bulk of a University-Wide Research figure of \$12,554,000.

Also included was the Memorial Hospital and Research Center at Knoxville, which reported a \$97,000 increase last year, for a yearly research total of \$269,000.

Most of the Medical Units' total is centered in the College of Medicine, which last year received a total of \$2,842,605 in research grants, and in the School of Basic Medical Sciences, with a total of \$1,904,868. The figures were released in October by the University Finance office in Knoxville. (Several grants received since then, and not

included in the above compilation, will push the current total even higher.)

The College of Medicine alone demonstrates the rapid growth. For the 1963-64 fiscal year, the total research outlay for the college was approximately \$2,000,000. In 1960, the research total for all the colleges (dentistry, pharmacy and nursing also included) was only slightly above that figure.

Not all goes into basic or clinical research. Some of the grants—which range from Federally-derived to private foundations and pharmaceutical companies—go to support of research training. Indeed, the training grant is taking on more and more significance.

Roughly 30% of the Medical Units' research total now is allocated to training grants which, in effect, teach the academician as well as physician of tomorrow how to utilize the tools and potentialities of scientific investigation.

"The research training grant is, in some areas, becoming an essential part of the teaching program," observes Dr. Richard R. Overman, Associate Dean of Medicine at the Medical Units, who has administrative responsibility for research programs within the College of Medicine.

At the moment, roughly 75% of the approximate 330 full-time medical faculty of the University are engaged in research as principal or co-principal investigators. More than 300 different studies are under way, with the number expected to increase yearly.

Two recent additions to the physical plant have given new impetus to the U-T Medical Units research programs. They are the city-owned William F. Bowld Hospital and the university-owned James K. Dobbs Institute for Medical Research, both constructed within the past two years. The University's Clinical Research Center is housed in Bowld Hospital, and is immediately adjacent to the Dobbs Institute which made possible additional laboratories and facilities for research in the clinical departments.

The Clinical Research Center, which takes research out of the laboratory and applies it directly to the patient, has completed its first 18 months in operation with some encouraging initial results in several



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areas. The first patients were admitted in July, 1965.

Dr. I. Frank Tullis, CRC director, noted that 41 projects involving human subjects have been undertaken since opening of the facility, involving some 450 admissions. Experience to date leads him to conclude that we "now have a real laboratory study area for the human subject, one which we feel compares favorably with any other research center of similar size in the country."

Further, he feels that the Medical Units are drawn closer to the practicing physician by means of the Center. He and his staff welcome consultative inquiries or suggested referrals from physicians in the state, and the resulting exchanges often prove beneficial both to the practicing physician and to the faculty or research staff.

The facility is supported by the General Clinical Research Centers Branch of NIH, under a current operating budget of approximately \$450,000 a year. No fees can be charged the patient who is admitted as a research subject. Each study suggestion is carefully screened by a committee on the patient's participation in human research before the project can proceed. Because of the ongoing nature of many of the studies (some patients spend as much as 6 months or a year in the 20-bed ward available to the CRC), admissions necessarily are limited.

The nature of the investigations undertaken depends largely on the research interests of the faculty of the Medical Units who make use of the CRC facilities. Any research subject can be explored, provided it meets the approval of the appropriate review committees. In addition to committee safeguards, the patients themselves (or their parents) are thoroughly briefed as to investigations and must agree voluntarily to studies before a project is started.

Although no long-range studies have been completed, due to the relatively short time the new facility has been in operation, results already have been reported on two investigations, one on colitis and hepatitis, the other dealing with cataract surgery for infants with the rubella syndrome.

In the first mentioned, CRC investigators have concluded that immunosuppressive drugs promise "encouraging" results as

therapy for both chronic hepatitis and chronic ulcerative colitis.

The second study is designed to determine the nature of infections of the eye among infants with the rubella syndrome. This study already has resulted in development of a new technique of releasing the cataract from its capsule or coverings.

Dr. Tullis believes that perhaps the greatest overall achievement to date is "rounding out a staff and acquiring the technical equipment needed" for the laboratory area. The facilities include a special kitchen which is especially helpful in metabolic studies where strict diet control must be maintained. Still another valuable research "tool" available to the staff is a specially-built hospital bed capable of registering the most minute weight variations in a patient. Sometimes referred to as a "metabolic scale," this instrument is invaluable in charting a wide range of physiologic data during a patient's progress in a research study.

PERSONAL NEWS

Dr. R. Eustace Semmes, Memphis, was the guest of honor on February 17th at a dinner given by the Southern Neurosurgical Society. The Society was founded by Dr. Semmes nineteen years ago. A second honor bestowed upon Dr. Semmes was the Merit Award of Baptist Memorial Hospital. Presented in recognition of his multi-faceted and supremely loyal contribution to the hospital, it is the second such award granted within the past twelve years.

Dr. Charles N. Hatfield has become associated with **Dr. Trent Vandergriff** in the practice of medicine in Maryville.

Dr. W. K. Tilley, Lebanon, has been named president-elect of the Mid-South Postgraduate Medical Assembly. **Dr. B. G. Mitchell**, Memphis, was named vice-president of the Assembly and **Dr. Henry G. Rudner**, Memphis, was re-elected secretary-treasurer.

Dr. Harry Stone and **Dr. John Crowell** were participants in a panel discussion on cancer presented under the auspices of the American Cancer Society at a meeting of the Chattanooga Sertoma Club on February 2nd.

Dr. Van Fletcher, Chattanooga, has been re-elected to the Board of Trustees of the Tennessee Hospital Service Association.

Dr. George Stevens, Oak Ridge, has been cer-

tified by the American Board of Orthopedic Surgeons.

Dr. Nicholas George Forlidas, Jr. has joined **Dr. J. J. Killeffer** and **Dr. Ernest Lineberger** in the Chattanooga Orthopaedic Clinic.

Two Tennessee physicians have been reappointed to Councils of the American Medical Association. **Dr. Allan D. Bass**, Nashville, has been reappointed as a member of the Council Drugs, and **Dr. William J. Darby**, Nashville, was reappointed to the Council on Foods and Nutrition as well as being elected as Chairman of the Council.

Dr. Ivan C. Humphries, Cleveland, was guest speaker at a recent meeting of the Woman's Auxiliary to the Bradley County Medical Society.

Dr. Robert C. Rendtorff has been appointed director of communicable disease control for the Memphis and Shelby County Health Department, assuming responsibilities formerly held by Dr. Eugene W. Fowinkle, now the Department Director. Dr. Rendtorff will continue as professor of preventive medicine and associate professor of microbiology at the Medical Units, University of Tennessee.

Dr. Ben D. Hall, Johnson City, and **Dr. Fred Ownby**, Nashville, served as delegates at the regional conference of the American Society of Internal Medicine in New Orleans, February 11-12.

Dr. Max A. Crocker, formerly of Hohenwald, has opened his office for the practice of medicine in Lexington.

Dr. John T. Mason, Nashville, has been appointed chief of staff trainee at the Veterans' Administration Hospital.

Dr. James B. Millis, Donelson, will be installed as a Fellow of the American College of Obstetricians and Gynecologists at its annual meeting, April 17-20.

Dr. Frederick Vance, Bristol; **Dr. Charles E. Allen**, Johnson City; and **Dr. Donald P. Chance**, Kingsport, were participants in a TV presentation entitled, "Heart to Heart Talk" on February 21st. The program was sponsored by the Appalachian Heart Association.

Dr. Don A. Wheeler has been elected president of the Resident and Intern Doctors Association of the City of Memphis Hospitals.

Dr. Ira S. Pierce, Knoxville, was guest speaker at the annual Heart Dinner in Newport, February 16th.

Dr. E. L. Caudill, Jr., Elizabethton, has been appointed full-time medical consultant of Beaunit Corporation.

There have been many advances in the past twenty years in our understanding of disorders of the respiratory tract in infants and children. Up to this time much of this material was to be found only in current periodical literature or in textbooks of pediatrics. The lungs of children differ from those of adults in many ways. These differences account for the need of a new book devoted entirely to the subject.

The coverage, however, in this one is only fair. There is much which one might have desired which concerns the anatomical, physiological and immunological differences between adult and childhood diseases. To pick out only a few, there are glaring omissions of such things as a discussion of tuberculin skin testing with its dynamic significance for treatment, underlying disturbed physiology of hyaline membrane disease, and of our newer knowledge of the problem of atypical mycobacteria. A little better coverage of basic science material such as respiratory physiology might have been done.

The roentgen reproductions are excellent. The chapter headings entitled "Classification" are definite aids in differential diagnosis. In view of the fact that although we have been without such a book and the need for it is well established, a colleague has published almost simultaneously a book on the same subject which is superior.

DISORDERS OF THE RESPIRATORY TRACT IN CHILDREN. Edited by **Edwin L. Kendig, Jr., M.D.**, Professor of Pediatrics, Medical College of Virginia. 790 pages. **W. B. Saunders Company, Philadelphia.** 1967.

We enthusiastically recommend this book. It is a must for the bookshelf of all those who deal with diseases of childhood. These diseases are unique because we deal not with little men and women but with individuals in a constant state of growth and development with anatomical, physiological and immunological differences from the adult.

So many new books lag years behind the current periodical literature but this one contains a number of chapters which project our newer knowledge into the future as well as to make available a reference volume or textbook which represents the best and newer information which can be found on the subject. Present advances in respiratory physiology are succinctly covered in a chapter on The Functional Basis of Respiratory Pathology. Such chapters are ones by Mildred Stahlman on Respiratory Disorders of the Newborn and another on Asthma by Susan Dees. A chapter on infections with unclassified mycobacteria and sarcoidosis by Dr. Kendig represent for ready reference purposes the best knowledge we have on the subject anywhere at the present time. Uncommon conditions such as pulmonary hemosiderosis and alveolar proteinosis are briefly covered and represent ready reference sources for student, resident and busy practitioner.

This is an excellent book which can be recom-

BOOK REVIEW

PULMONARY DISEASES AND ANOMALIES OF INFANCY AND CHILDHOOD. By **Milton I. Levine, M.D.** and **Armond V. Mascia, M.D.** 368 pages, 148 illustrations. **Hoeber Medical Division, Harper and Row, Publishers,** 1966. Price \$12.00.

mended unequivocally. It brings together as co-authors many of the accepted authorities on the subjects covered. This has required unusual editorship but it has been accomplished by Dr. Kendig. This reviewer considers the book unusually comprehensive and authoritative.

ANNOUNCEMENTS

Calendar of Meetings, 1967

State

May 18 Middle Tennessee Medical Association, Gallatin

National

May 3 American Cancer Society, Inc., Sheraton-Dallas Hotel, Dallas, Texas

May 4-6 American Gynecological Society, Arizona Biltmore Hotel, Phoenix, Arizona

May 6 American College of Psychiatrists, Annual Meeting, Detroit

May 7-12 American Psychiatric Association, Cobo Hall, Detroit

May 18-21 American Association of Plastic Surgeons, Royal York Hotel, Toronto, Canada

May 21-24 American Thoracic Society, Penn-Sheraton Hotel, Pittsburgh

May 25-27 American Gastroenterological Association, Broadmoor Hotel, Colorado Springs, Colo.

May 28-June 1 American Dermatological Association, Broadmoor Hotel, Colorado Springs, Colo.

May 29-31 American Ophthalmological Society, The Homestead, Hot Springs, Va.

May 29-June 2 American Urological Association, New York Hilton Hotel, New York

June 12-14 American Neurological Association, Claridge Hotel, Atlantic City, N. J.

June 15-19 American College of Chest Physicians, Atlantic City, N. J.

June 17-18 American Diabetes Association, Hotel Dennis, Atlantic City, N. J.

June 18-22 American College of Preventive Medicine, Atlantic City, N. J.

June 18-22 American Medical Association, Atlantic City, N. J.

June 18-24 American Urological Association, Princess Kaiulani Hotel, Honolulu

June 26-29 American Orthopaedic Association, Homestead, Hot Springs, Va.

August 21-24 American Hospital Association, Chicago

September 7-9 American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.

September 14-16 American Thyroid Association, Michigan Union, Ann Arbor, Mich.

Sept. 15-23 American Academy of General Practice, Dallas, Texas

Sept. 22-30 American Society of Clinical Pathologists, Palmer House, Chicago

Sept 28-30 American Association for Surgery of Trauma, Drake Hotel, Chicago

Sept. 29-Oct. 3 American Society of Anesthesiologists, Las Vegas, Nev.

Intensive Coronary Care Nursing Course

The second course in Intensive Coronary Care Nursing has been scheduled at Baptist Hospital, Nashville, for the two week period beginning July 10, 1967. The course, supported by the Public Health Service and the Middle Tennessee Heart Association, will be open to any graduate nurse in Tennessee. The first week of the course will include lectures on the basic anatomy and physiology of the heart as well as arrhythmias and their electrocardiographic interpretation. The second week includes lectures on coronary artery disease, myocardial infarction and its complications, and further instruction in electrocardiographic interpretation. There will be practice in the use of the various monitors and defibrillators used in coronary care units. Individual instruction and demonstration will be an integral part of the course. At a later date, a third week will be spent gaining practical experience in a coronary care unit.

For information, write to the Director, Coronary Care Unit, Baptist Hospital, Nashville, Tennessee 37203.

1967 Rorer Awards Contest of The American College of Gastroenterology

The American College of Gastroenterology, in cooperation with William H. Rorer, Inc., of Fort Washington, Pa., announces the 1967 Rorer Awards Contest for the best papers in gastroenterology. There will be two classes of awards: (1) for the best unpublished papers in gastroenterology or an allied subject; and (2) for the best paper published in the American Journal of Gastroenterology. Rules and regulations may be obtained from the American College of Gastroenterology, 33 West 60th Street, New York, New York 10023.

Medical Assistants' Annual Meeting

The 11th annual convention of the Medical Assistants' Society of Tennessee will be held May 5-7 in Nashville with headquarters at the Holiday Inn-Capitol Hill. The program will include business sessions, luncheons, educational sessions, and a tour of the Capital City and The Hermitage. A highlight of the meeting will be a banquet on the evening of May 6th. Dr. William Meacham, Nashville, immediate past-president of the Nashville Academy of Medicine, will be the banquet speaker. Following the banquet, there will be dancing to the music of "The Doctors' Orchestra."

Advance registration is requested by April 20th. The registration fee is \$15.00. Hotel reservations should be made directly with the Holiday Inn, Capitol Hill, Nashville. For information: call or write Mrs. Martha Puryear, 2100 Hayes Street, Nashville, Tennessee 37203.

Course in Medical and Science Writing

Three days of seminars on the writing of medical and other scientific manuscripts will be held May 12-14 at Big Sur, California, under the joint sponsorship of the Esalen Institute and the Northern California Chapter of the American Medical Writer's Association. The program will alternate

between lectures and workshops. Membership in the sponsoring organizations is not necessary for enrollment. The \$60 fee for the course includes room and meals. For registration and further information, contact: Harley Messinger, M.D., Ph.D., 3029 Benvenue Avenue, Berkeley, California 94705.

Postgraduate Course in Psychiatry

The Tennessee Department of Mental Health, Central State Hospital and Vanderbilt University School of Medicine in cooperation with the Tennessee Academy of General Practice announce a one-day Seminar to be held at Central State Hospital in Nashville, on Thursday, May 25. The main topics will be focused on the problems of the aged. Dr. Ewald T. Busse, Chairman of the Department of Psychiatry at Duke, and Dr. Howard Kern, Project Director of the Joint Committee of the American Psychiatric Association and the American Academy of General Practice will be the principal speakers. This course is acceptable for credit by the American Academy of General Practice.

Registration will be held in the lobby of the Hawk Building at Central State Hospital beginning at 8 a.m. Tuition and luncheon by courtesy of the Central State Hospital.

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T M A

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Doctor-Patient Relations*

Like so many things today, the doctor-patient relation has gradually changed with the "changing times." But perhaps the change has been for the better in most ways, and much more so than some are inclined to think.

Recently at an open forum at a towns meeting, which was held monthly with various industries and businesses participating, five doctors were asked to sit on a panel. Impromptu questions were asked by those in attendance about their profession with the idea of "hearing the other side" and of trying to learn more about doctor-patient relations and doctor-patient communications. Such had been the procedure with the other professional and business men at the other monthly meetings. The spirit of the various meetings had been good, wholesome, and helpful, although the citizens in the audience voiced their true feelings which included pointed criticisms. The purpose was two-fold. Besides giving each an opportunity to express his own sentiments, it also gave those present an opportunity to hear other viewpoints and problems discussed.

One of the criticisms directed to the panel of doctors dealt with what was described by some as a loss of the "old personal touch" of the family physician of yesteryear. Several gave their views before the doctors replied. There was a voiced indication at the meeting that perhaps part of the blame could be leveled specifically at the increase of specialization as well as the use of complicated diagnostic procedures which seemed to entail too much technical time and not enough physician-patient communication time. One older gentleman's comments had a tone of criticism and nostalgia as he spoke of his longing for the "good old days" of the physician-relations of "horse and buggy" renown.

Later it was brought out that the physician and patient may well have known

each other more intimately then, but the "good old days" were perhaps not so "good" and one would hardly wish to return to a less effective type of medical practice.

In those celebrated "good old days" it was often possible for the physician to spend a great deal of time listening to his patients and to hear all they wanted to say. Unquestionably, he was the physician-humanitarian and he gave generously what he could of himself, not only to his patients but to their families as well and generally for as long as he was needed, and society is deeply indebted to him.

But, unfortunately, he was then without antibiotics and countless other important recent medical advances. And without them he was often deeply perplexed about treatment. In this paradox of medical progress, we have, on the other hand, increasing evidences of astounding advances, the discovery and application of cures, drugs, treatment, and techniques that can only be described as miraculous.

And, as it was pointedly brought out at the town meeting, the passing of time has brought vast changes into the lives, mode of living, both for the patient as well as the doctor. These changes have, in many instances, been quite radical and far reaching, and at the same time, have proved greatly favorable. Furthermore, the vast scientific advances and the remarkable medical progress of the past 25 years have had direct effects on the doctor-patient relationship.

In just a quarter of a century, antibiotics, tranquilizers and other drugs have brought about revolutionary changes in the field of medicine.

Good relationship in any and every endeavor, from business-customer communications, to the home, the church, the neighborhood, governments, organizations—is a two-way responsibility of understanding, communication, and cooperation.

You may have your own ideas about criticisms directed at today's busy doctor and of the physician-patient relations of 25 years ago and today. But how much do you know

*From the AMA kit, "Physician-Patient Relations."

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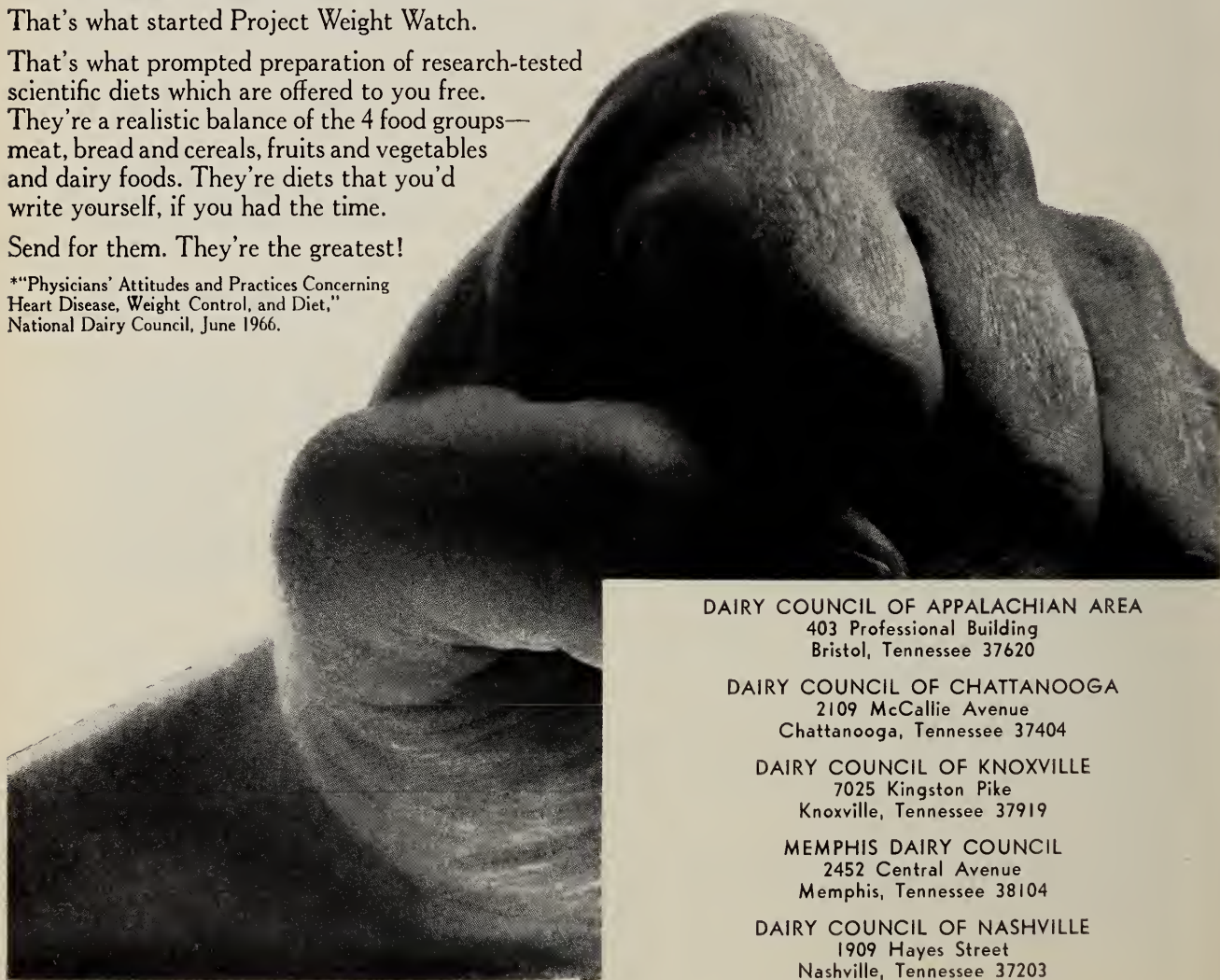
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*"Physicians' Attitudes and Practices Concerning Heart Disease, Weight Control, and Diet,"
National Dairy Council, June 1966.



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of "his side" of the argument? How much do you know of his problems?

A few months ago, the St. Louis Medical Society Bulletin ran a short article entitled, "The Who, What, Where, When, How Of Your Doctor," which is germane to this topic of doctor-patient relations.

"Who is your doctor?" Your doctor is a person who has been trained to make living more comfortable and to make life last longer. He is not, and should not be thought of as, some sort of magician who can do the impossible or do the supernatural. He cannot go without food or sleep for longer periods of time than you or I. He cannot run faster or carry heavier loads. He cannot go longer without a change of pace—recreation—than you or I. He cannot see any farther beyond the Tomorrow of our living than he can see beyond the Tomorrow of his own life. Your doctor is a human being trained to prolong life and make living more comfortable.

"What is your doctor?" Your doctor is what he is because he chose to be what he is. He dedicated himself to the number of years it took for him to become—first a doctor of medicine, and then in addition to those years the "more years" it required to become a urologist, anesthesiologist or ophthalmologist (just to name only three of the many specialties). He is what he is because of his ability to comprehend and understand the chemistry of the human body: the body's urges—its satisfactions—its reactions to stimulation whether that stimulation be by drugs, or mechanics, or by mental or physical processes.

"Where is your doctor?" Well, the ideal place for your doctor when you need him would be next door. Since doctors have more than one patient they *cannot* have their office NEXT DOOR. Your doctor usually has his office in some central place most convenient for the majority of those he serves, and if it is at all possible, in the general service area of a well-staffed and completely equipped hospital. While all of us would prefer to be able to go next door if we are ill or injured, we must recognize the fact that it is better to go those additional miles to a trained expert than just anyone because he is next door. Your doctor is where he is because of many factors—

nearness to additional medical facilities—nearness to hospitals—and nearness to available drug supply. With our modern transportation facilities, no patient need worry too much if his doctor's office is several miles away, or if the hospital is several more miles away. Only a few years ago a horse-drawn vehicle with a sick or injured patient traveled about four miles per hour. Now the sick or injured can be moved safely at perhaps a mile per minute. Nearness is a word that has changed in meaning since the automobile and airplane have been developed. New York City is closer now (time wise) to St. Louis, Missouri than St. Louis, Missouri was to Jefferson City, Missouri in 1920.

"When is your doctor?" Have you thought of what your doctor is doing on the days when you do not go to his office? On those days, your doctor is seeing patients that he did not see during the time he was taking care of you. Everyday a doctor's time is filled with the great number of things all doctors are required (by good medical practices) to do—see patients in his office—visit patients in the hospital—examine laboratory reports—read X-rays and electrocardiograms—review the ever-increasing literature about the new (and often miracle) drugs being discovered and developed by our pharmaceutical manufacturers—keeping records—making reports—just to name a few of the most important WHEN is WHEN you need him. IS HE READY TO EASE THE PAIN—repair the damage? And if he is already committed to another task, when can he find the next minute for you? We very rarely give a thought to where and what our doctor is doing until pain strikes, and then, when can he see us is the most important question in our life. Some of us fail to establish contact with a doctor of medicine before we need him, and then when (in an emergency) we do become his patient, he works at a handicap because of a lack of knowledge of our medical history—our normal pain-free pulse rate or blood pressure. Establish contact with your doctor before you need him. It is the best insurance against pain and suffering you can buy.

Your doctor is a composite of many things. He has acquired certain abilities

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and techniques that are his because he has earned the degree of M.D., Doctor of Medicine. He has a knowledge of the human body and the effect that thousands of different drugs can have on that body because he has spent a number of years on book learning, observation, and actual experience under competent leadership and counsel. The sole purpose of his professional action is to fulfill the oath he took when he became a doctor of medicine. Stated simply it could read, "To help my patient live a longer, more comfortable life." Very likely, in addition to being educated in the science of medicine, your doctor is a member of the local county Medical Society, the State Medical Association, and the American Medical Association. Through these organizations he is further schooled and he is kept up to date through—

1. Conferences, seminars, and conventions
2. Publication of scientific papers
3. Having available other doctors for consultation
4. Having an opportunity to observe the techniques and procedures of others
5. Having association with others in his own specialty which allows him time to do some research—some further study.

Because the science of medicine is progressing at a rate far beyond the hopes or beliefs of some of those in the profession, the *how* of your doctor today will not be the same tomorrow. Twenty years ago your doctor could not have prescribed 80% of the drugs he uses today. They had not been discovered, developed, perfected, approved, and made available to him. Twenty years from now many of the miracle drugs of this year may be discarded because a new and better way of keeping you comfortable and giving you a longer life has been found.

Do's and Don'ts

DO

1. Establish contact with your doctor be-

fore you need him. A doctor's strongest arm in a fight against your illness or injury is a good record of your previous self.

2. At all times tell your doctor the truth. Concealing the facts or failing to tell the truth can result in a faulty diagnosis, erroneous treatment, and an unsatisfactory result for both you and your doctor.

3. When you go to your doctor for advice (treatment) and you get it, **TAKE IT.** Follow his plan for your recovery or tell him honestly that you would rather be your own physician, and do a do-it-yourself job without his help.

DO NOT

1. Expect your doctor to be always available to you night or day, rain or shine. He probably has other patients who may be in as much need of his services as you are.

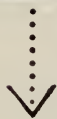
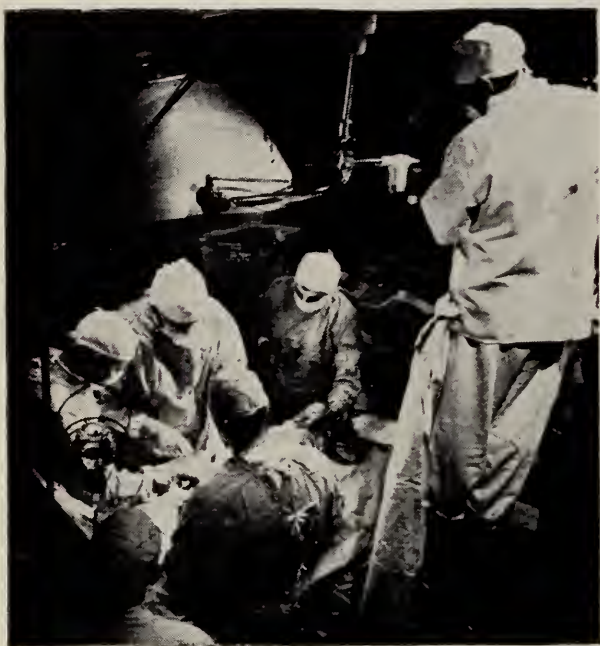
2. Expect your doctor to wait an indefinite period of time to receive your check for his services. Remember how urgent you thought it was for him to "give" you some of his time, talent, and ability when you needed him.

3. Expect your doctor to make emergency calls when there is no emergency.

4. Expect to receive a liberal education in medicine by reading a few medical columns in newspapers, or a few articles published in National magazines, or by reviewing a few TV shows. A little knowledge is often dangerous, especially when it leads the patient to confuse a podiatrist with a pediatrician, or a tonic with a vaccine.

Back to the town meeting and forum—the conclusions reached that night by those present were, that the doctor-patient relations in their town were indeed good and that the rational exchange of viewpoints and ideas had brought about a much deeper understanding of the others' problems.

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Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

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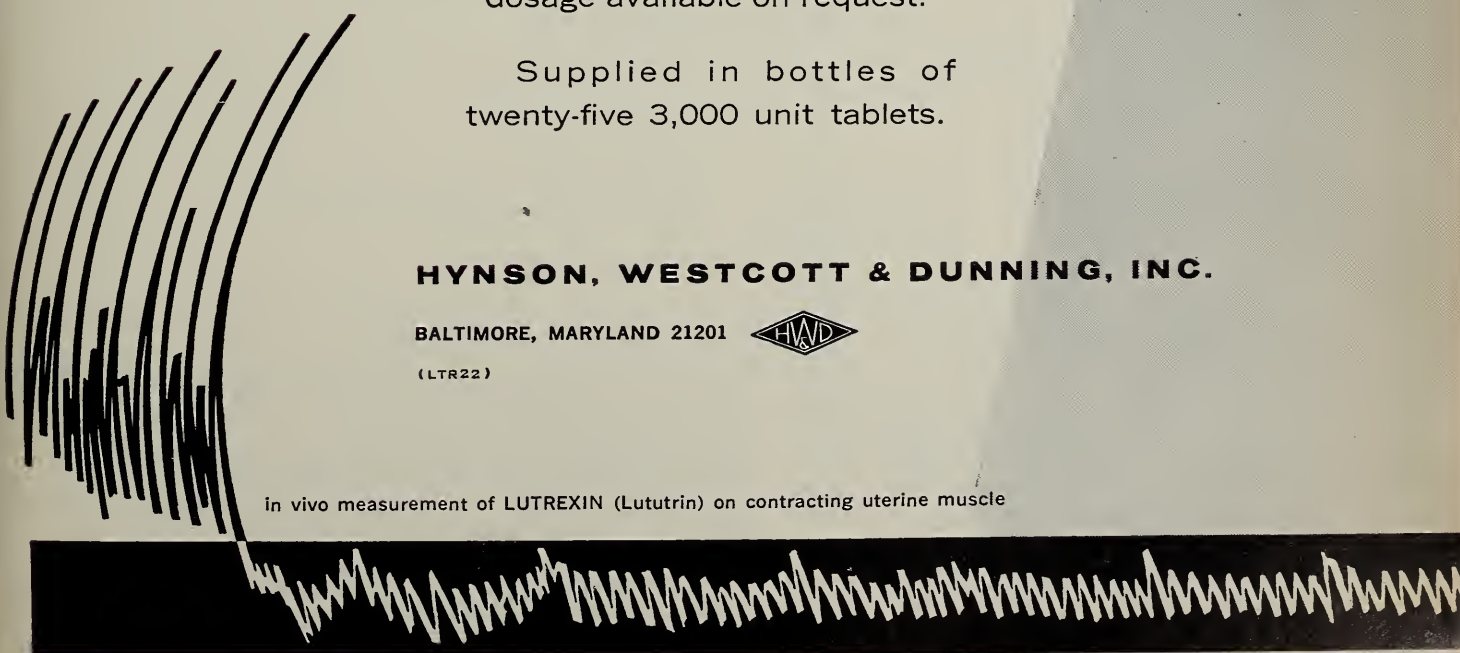
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

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NO. 5

The author's studies verify other reports as to the origin of emboli and the cause of death. Of importance is the finding that of those surviving the first hour, death is postponed up to 36 hours, which permits of definitive diagnosis and treatment.

Fatal Pulmonary Emboli: A Study of Twenty-two Autopsy Proven Cases*

J. W. DUNCAN, M.D., Portsmouth, Va.

Pulmonary embolism, an all too common complication of hospitalization, has recently come under renewed surgical attack. It has become obvious that many of the previously accepted ideas about the disease are either false or over-simplified. In an attempt to better clarify some of these factors, a study of cases of massive pulmonary emboli coming to autopsy was undertaken.

Methods

All cases from 1962 through 1964 with an autopsy diagnosis of pulmonary embolism were drawn from the medical records of the City of Memphis Hospitals. In all but 2, pulmonary emboli apparently contributed to the cause of death, but in only a few instances were the emboli considered the actual cause of death. Emboli due to amniotic fluid, fat and air were excluded from this series. A total of 22 cases were studied. Diagnoses were not accepted unless objective evidence of embolism (gross and microscopic) was present. A diagnosis of antemortem thrombus was made by the criteria of friability, "lines of Zahn" and attachment to endothelial wall, as outlined by Robbins.¹

In some cases the time interval from onset of symptoms until death had to be estimated since time factors were not always known.

Results

Of the 22 cases studied, the sex incidence was approximately equal—10 in males, 12 in females.

Most patients were between 60 and 80 years of age; the mean age was 64, the median age, 66.

The admission diagnoses were: heart disease in 7; stroke in 7; terminal cancer in 4; one was post-operative; one, postpartum and one from trauma. One patient was admitted for benign prostatic hypertrophy. None were admitted for pulmonary embolism *per se* (Table 1).

Table 1

ADMISSION DIAGNOSIS

A. Heart disease (congestive failure and/or MI)	— 7
B. Stroke	— 7
C. Cancer	— 4
D. Postoperative, postpartum, trauma	— 3
E. Benign prostatic hypertrophy	— 1
Total	— 22

The apparent origin of the emboli was found in 17 cases. The most common site of origin appeared to be the right atrium. The next most common site was the leg. (Table 2.)

Table 2

APPARENT ORIGIN OF EMBOLI

A. Right atrium (atrial fibrillation, A-V block, endocarditis)	— 7
B. Legs (phlebothrombosis, thrombophlebitis)	— 4
C. Pelvis (phlebothrombosis, thrombophlebitis)	— 3
D. Right ventricle (myocardial infarct)	— 3
E. No origin found	— 5
Total	— 22

*From the Department of Surgery, University of Tennessee College of Medicine, Memphis, Tenn.

Symptoms believed to be due to embolism occurred before death in 15 patients. The other 7 were found dead without known symptoms. In the 15 patients with symptoms, the time interval from the onset of symptoms until death showed these patients to fall into two different groups. Approximately half of the patients died less than one hour from onset of symptoms and the other half had symptoms for periods ranging from 36 hours to 30 days. A single patient died about 12 hours after onset of symptoms.

The above data imply that about two thirds of fatal pulmonary emboli cause sudden death. However, of these suddenly fatal cases, about three-fourths showed pathologic evidence of pulmonary embolism having been present for some time (multiple small, or both old and recent emboli). This indicates that these fatal episodes were preceded by other pulmonary emboli which were not suspected clinically.

A summary of symptoms in patients surviving more than an hour is presented in Table 3. The most common symptom was

Table 3
SYMPTOMS IN PATIENTS SURVIVING
OVER AN HOUR

1. Dyspnea	— 9
2. Chest pain	— 6
3. Cheyne strokes, coma, death	— 3
4. Hemoptysis	— 2
5. Cyanosis	— 1

dyspnea. Clinical signs of pulmonary involvement were found in only 4 of these 15 patients. Electrocardiogram, x-ray and enzyme studies were complete in only a few patients and thus cannot be accepted with any validity.

Acute right heart failure was apparent in 17 of the 22 cases. The location of the emboli in these cases is shown in table 4.

Table 4
LOCATION OF PULMONARY EMBOLI ASSOCIATED
WITH ACUTE RIGHT HEART FAILURE

(When emboli were found in more than one area, the largest artery blocked was tabulated)

1. Saddle or both main pulmonary arteries	— 5
2. Main pulmonary artery	— 2
3. Multiple, small	— 7
4. Single lobar artery	— 3
Total	— 17

Discussion

The age incidence of pulmonary emboli is almost identical with the findings of Byrne and O'Neill.² It should be pointed out, however, that this study represents only fatal cases.

The diseases associated with pulmonary emboli agree in general with other studies in that cardiac, cancer and stroke patients most commonly have fatal pulmonary emboli.^{2,3} The number of postoperative and postpartum patients showed a variation from other studies, being 14% in this series, 26% in Byrne's² series and 32% in the series of Coon and Collier.³

The origin of pulmonary emboli has generally been considered to be from the leg. Zimmerman and associates,⁴ in 1949, reported 95% to arise from the lower extremity; others agree, in general.^{3,5} In the present study, the right heart was most commonly implicated. Green⁶ reported 4 of 8 emboli arising from the right atrium, in most cases as a result of atrial fibrillation. This discrepancy as to the origin of pulmonary emboli is, perhaps, explained by the fact that in some series those emboli for which no documented origin is found are attributed to the legs. (Table 2.)

The time interval from the onset of symptoms until death is important in deciding the amount of time to devote to diagnostic studies before definitive treatment (such as embolectomy or vena caval clamp) is instituted.⁷

In this study, all but one patient alive after one hour survived for over 36 hours. Thus, in these cases, accurate diagnostic studies are possible.

The fact that patients in one group died suddenly after the onset of symptoms does not mean that they died suddenly after the onset of the first pulmonary embolus. This is true because most of those who died suddenly showed pathologic evidence of previous undiagnosed pulmonary emboli. Greenberg⁸ showed that pulmonary emboli were diagnosed before death in only one-third of the cases. Also, the 61% incidence of pulmonary embolism in the general autopsy population as reported by Freiman and associates,⁹ lends credence to the above findings. This high incidence of undetected pulmonary emboli preceding fatal ones

point out that better methods of detecting emboli are needed so definitive treatment can prevent a fatal outcome.

There are two major theories as to the cause of cardiovascular changes in pulmonary embolism. One is mechanical obstruction of the pulmonary artery and the other is reflex spasm. Sabiston and Wagner¹⁰ believe that mechanical obstruction is most important and that more than 50% of the pulmonary vasculature must be blocked before cardiovascular collapse occurs. Evidence of this is provided by the lack of major cardiovascular changes following pneumonectomy. Evidence is also provided by experimental studies of E. Vitalo and associates¹¹ and Brofman and collaborators¹² who occluded a single main pulmonary artery by balloon catheter, and by Dexter¹³ and Marshall and associates¹⁴ who experimentally induced emboli and showed little response until more than half of the pulmonary vasculature was occluded. The theory of reflex spasm cannot be ignored since death is occasionally associated with embolism to a single lobar artery.

This study tends to verify Sabiston's statements, since in the cases with acute right heart failure, the majority had occlusion of more than half of their pulmonary vasculature. However, there are 3 cases of acute right heart failure in this series associated with an embolus to a single lobar artery.

Parenthetically, of the 9 massive pulmonary emboli removed by the Thoracic Surgery Service of the University of Tennessee in the last two years all had thrombotic occlusion of over half of the total pulmonary vasculature.

Summary

The clinical records of 22 consecutive cases of fatal pulmonary emboli, proven at autopsy, were analyzed. The following findings were most prominent:

1. The most common origin of emboli was the right atrium, followed next in frequency by the legs. In 23% of patients no origin was demonstrated.
2. Three-fourths of the cases of fatal pulmonary emboli showed pathologic evidence of previous emboli which were clinically unsuspected.

3. In most cases, the cause of death appeared to be acute right heart failure associated with occlusion of greater than 50% of the pulmonary vasculature.
4. Of those patients who survived more than one hour, only one died within the next 35 hours, so that definitive diagnosis and therapy are feasible from a time standpoint.

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The author has reviewed current concepts and practices in the management of myocardial infarction.

Recent Trends in the Treatment of Myocardial Infarction*

M. S. RAWLINGS, M.D.,† Chattanooga, Tenn.

Need for Hospitalization

Diseases of the heart and blood vessels remain the leading cause of death in the United States, killing more people than all other diseases combined. Acute coronary occlusion, affecting one in 3 men past 45 years of age, is treated best in the hospital. Decreased mortality is obtained by the early treatment of complications such as shock, arrhythmia or congestive heart failure. Treatment of these unexpected complications usually requires trained hospital personnel. During hospitalization it is also possible to perform continuous monitoring of the patient's heart beat for early detection and treatment of premature contractions or other arrhythmias before serious consequences occur. Some form of arrhythmia has been estimated to occur in 76% of cases of infarction during this early phase. This type of coronary care is given best in a well-equipped Intensive Care Unit. Resuscitative measures are also more readily available in such a unit. Recovery from "sudden death" is possible in almost half of the cases of myocardial infarction by use of mouth-to-mouth resuscitation and external heart massage.

Recent cooperative studies in 13 hospitals found a mortality rate of 18.6% during the period of hospitalization. (J.A.M.A. Sept. 12, 1966.)¹ The highest portion occurred in the first 4 days at 9.6%; 5th through 7th day 3.6 and 7th through 28th day 5 percent. During convalescence (day 29th through 120th) another rate of 6% deaths occurred, and days 121 through 365 including another 6 percent. In summary, a total death rate of 30% for myocardial infarction occurred within the first year for patients who lived long enough to reach the hospital.

†From the Diagnostic Center, Chattanooga, Tenn.

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Routine Coronary Orders

A written list of orders for routine use in caring for patients with coronary disease is desirable, tailoring all changes to each patient's needs, and yet not forgetting some of the assumed necessities. Some of the items to include are listed as follows:

(1) *Relief of pain.* Morphine-sulphate with atropine is still preferred; meperidine (Demerol) is second choice since it is less potent and sometimes more irritative to local tissues. Initial intravenous use of these drugs is suggested for severe pain with 5 to 10 mg. of nalorphine (Nalline) handy as an antidote if an overdose is given. Severe pain can induce both shock and arrhythmias through reflex mechanisms that are still poorly understood. The narcotic dose should be repeated in small increments until the need is met. The intravenous route is preferred in shock states due to poor absorption from intramuscular sites.

(2) *Oxygen.* Oxygen therapy is indicated if shock, cyanosis, congestive heart failure or persistent pain is present. It is not needed otherwise and does not seem to alter the prognosis. The oxygen tent is used mainly for its air conditioning effect; nasal oxygen (double-lumen tube) or oxygen by mask is more effective and also allows the nurse to care for the patient without the hindrance of an enveloping tent. Hyperbaric oxygen therapy is still experimental but does seem to have some favorable effects upon the patient's recovery.

(3) *Medications.* Nitroglycerin is used in the treatment of coronary insufficiency but has no real place in the treatment of acute infarction. The same is true for vasodilators. Sedatives, however, should be used routinely. Chloral hydrate can be used in those past age 50 since some older people seem to hyperreact to phenobarbital; under 50 we give phenobarbital as gr. ss 4 times daily, doubling this amount if neces-

sary. I use *quinidine*, gr. iii every 4 hours or *Pronestyl*, 250 mg. every 4 hours, doubling this dose if necessary, at the first indication of premature contractions. Lidocaine (*Xylocaine*), 50 ml. of a 2% solution in a liter of glucose in water may be used in more difficult cases. Most of the disturbances of rhythm encountered in the acute phase of infarction are preceded by warning phases of irritable heart beats from the infarcted area. Abolishing these extrasystoles will frequently prevent subsequent arrhythmias from developing. Other medications will be discussed later.

(4) *Laboratory data.* SGOT. and LDH. enzymes are ordered routinely the first 3 days of therapy. The serum glutamic oxalic transaminase becomes positive within 24 to 48 hours, while the lactic acid dehydrogenase enzyme becomes positive in the 2nd to 5th day after infarction and is helpful in delayed findings of infarction. Routine studies of fasting sugar and cholesterol are done before dismissal as a survey for some of the diseases predisposing to coronary occlusion. Sedimentation rates, usually corresponding to the temperature elevations, may also be used to follow activity of necrosis. Serial electrocardiograms are obtained daily until they become stable. Chest films are obtained sometime before dismissal.

(5) *Anticoagulants.* For some time observations on anticoagulants have been debated since one group of investigators often is at variance with another group because different standards of observation are used. Hence, the pendulum has swung from one extreme to the other—thus there is a large school who use anticoagulants and a smaller one who do not. However, most reports seem to point to a decreased morbidity and mortality when anticoagulants are used. In the absence of contraindications we use anticoagulants routinely for a minimum of 3 months and as long as one year. If several infarctions have occurred I use anticoagulants indefinitely. However, a 10 year double blind study has shown no advantages to life-time anticoagulant therapy unless atrial fibrillation, recurrent phlebitis or prosthetic valves are present. It does not seem to prevent recurrent myocardial infarctions

according to Griswald and Seaman,² although Dr. Irving Wright uses them regularly in recurrent myocardial infarction with angina and in transient attacks of ischemia.

After initial regulation I have the patient return for monthly prothrombin determinations and keep the prothrombin level at twice the control value in seconds (or at the same level as the 20% control value if this measure is used). The danger of bleeding from anticoagulant therapy, I think, is offset by the advantages of decreased morbidity and increased means of patient contact and control through regular examinations. The use of anticoagulants, of course, implies selected patients since anticoagulants are contraindicated in the following conditions:

(1) Bleeding tendencies, uremia, liver disease, peptic ulcer disorder or extreme hypertension.

(2) When reliable laboratory facilities are unavailable.

(3) Where poor patient cooperation is expected.

(4) When psychologic dependence or perpetuation of cardiac neurosis is expected by continuance of medication.

Heparin is a short-acting injectable drug of rapid onset that we use the first 72 hours or until the longer acting coumarin derivatives of slow onset become effective. We start both drugs at the same time. Heparin, 150 mg., is given deeply in the subcutaneous tissues every 12 hours as long as the Lee-White time (taken before each dose) is below 20 minutes. The antidote for heparin is protamine or Polybrene, 100 mg. I.V. *Warfarin* (coumarin), is an anticoagulant of prolonged action. I prefer to give in an initial dose of 30 to 40 mg., using 5 mg. as an estimated daily maintenance dose until actual requirements are evident by daily determinations of prothrombin time. *Phenindione* (Hedulin) is an intermediate derivative given in doses of 150 mg. initially, followed by 50 mg. twice daily until control levels are reached and then given as a maintenance dose which averages 75 mg. daily in divided amounts. The antidote for the indandione and coumarin derivatives are the soluble vitamin K products (phytondione) such as AquaMEPHYTON, 1 ml. I.V. or 2 ml. I.M., repeated every two hours until the abnormal prothrombin levels are corrected.

(6) *Polarizing solutions.* For some time the findings of Sodi-Polaris concerning polarizing solutions has been questioned. Although they are admittedly helpful in reducing the injury phase of infarction, their usefulness is still unproven and their use should especially be avoided in uremia and heart block. Recently, however, an actual decrease in mortality and other effects have been suggested by the experimental work of Richard Bing and associates.³ These studies seem to indicate that protein replacement in the destroyed myocardial muscle cells is hastened by the use of polarizing solutions. Even more muscle tissue seemed to recover if corticoids, vitamins and injectable anabolic agents were added to the solution. The basic polarizing solution usually consists of 1,000 ml. of 10% invert sugar in distilled water with 40 milliequivalents of potassium chloride added and 20 units of regular insulin.

(7) *Toiletry.* Bed pans have no place in the nursing care of myocardial infarction. Unless shock is present the patient should be assisted to a bedside commode for bowel movements and allowed to stand to void when necessary. Even when shock is present the blood pressure may be elevated by increasing the rate of an intravenous vasopressor drip or similar agent, permitting the patient to sit for evacuation purposes. This would be preferable to the dangers of straining at stool, since any valsalva maneuver temporarily occludes venous return to the heart and momentarily obliterates output for essential coronary and cerebral perfusion. In this regard, medications to soften bowel action (such as Doxidan or Pericolace) should be given routinely and enemas, laxatives or suppositories added as needed.

(8) *Diet.* During the first 24 hours the diet should be liquid. Subsequently a permanent anti-atherogenic diet is used (high in polyunsaturated fats but less than 20 Gm. total fat). No coffee is allowed. Comparative 5 year studies show that new coronary disease is significantly lower when using anti-atherogenic diets.⁴ No smoking is allowed until the acute phase of infarction has recovered and then I try to discourage the patient's further smoking since there

are several reports of improved prognosis.

(9) *Activities.* During the acute phase, the patient is allowed to turn side-to-side while all other activities should be performed for him wherever possible. The febrile phase usually lasts 3 to 5 days. After this we usually help him up into a chair once daily and permit him to stay as long as he wishes, assisting him back to bed. Thereafter the patient is usually able to feed himself, shave himself, and bathe personal portions of his body. Visitors are limited to one or two at a time and then only members of the immediate family. No telephones are permitted until the patient has passed the fifth or sixth day of hospitalization. Thus, activities are limited severely in the first 3 or 4 days and the *patient should be completely monitored during this time.* This is best done by remote televised monitoring to a central nurses station in a coronary care unit. These units permit aggregation of all patients with acute infarction during their high-risk period into an area supplied with highly trained personnel and specialized equipment. A significantly lower mortality rate has been shown to be a result.⁵ The patient is unbathed, hand-fed and unshaved during this period. After the 7 to 10 days of hospitalization, the patient is transferred out of the Intensive Care Unit into moderate care areas. He is sent home after the second or third week of hospitalization although this depends upon the size of infarction, the duration of fever, the initial presence or absence of shock, and disturbances in rhythm. Unless these complications have occurred the patient usually goes home at the end of 2 weeks of hospitalization, since the period of myocardial rupture has then passed and the patient is well on the way to recovery.

Another 4 to 6 weeks is allowed for recuperation at home and after a total of 8 to 10 weeks following the onset of infarction he may return to light or part-time work. Myocardial scar tissue should be firm and retracted at the end of this 6 to 8 week period, and this is about the time it takes for scar tissue to become firm in most sites in the body. Ambulation before scar tissue has become firm may cause fatal myocardial rupture or an aneurysmic bulge of the infarcted ventricle. Thus, healing in the in-

farcted area is about complete in 3 months and, the patient should no longer be concerned about the dangers of the present "heart attack" but should direct his attentions to the prevention of future heart attacks through prophylactic programs of physical activity and diet and perhaps the use of vasodilator drugs during the periods of sleep and inactivity.

Treatment of Complications

(1) *Congestive heart failure.* For some time digitalization was thought to be contraindicated in the presence of acute myocardial infarction because of the irritability of the damaged myocardium and the possible creation of premature contractions or other irritable rhythms. However, this does not appear to be the case. Digitalization does not seem to increase irritability but does seem to increase cardiac output through improved contractile force of the heart muscle. Digitalis may be given rapidly or slowly and the drug used may be rapid in onset such as Ouabine 1 ml. I.V. and repeated in 30 minutes for full digitalization; less rapid in onset would be cedilanid 0.8 mg. followed by 0.4 mg. in 4 hours and again 4 hours after that; the next slower agent would be digoxin 0.75 mg. initially followed by 0.25 mg. every 6 hours for 3 doses, and then by 0.25 to 0.50 mg. as a daily maintenance dose. Digitalization with whole leaf would take longer and the dose would be 1.2 Gm. of digitalis leaf in divided doses. Digitoxin, 1.2 mg. in divided doses would take still longer to be effective.

The supporting drugs in the treatment of congestive heart failure include the diuretics, analgesics, sedatives, aminophylline, digitalis, B-receptor sympathomamines, oxygen and sometimes bloodletting. Occasionally, however, complications may occur from the treatment itself. Carbonic anhydrase, for example, depresses renal excretion of acid and induces temporary acidosis and any ammonium chloride therapy added at this time may aggravate the acidosis and could be fatal. Hypochloremic alkalosis, on the other hand, is usually due to excessive diuretic therapy and results in intracellular acidosis and poor responsiveness to further mercurial diuretic therapy. Secondary hyperaldosteronism of congestive

failure will increase the sodium retention in heart failure and also aggravate potassium loss and may induce hypokalemia, especially if thiazide diuretics are used. These losses may be corrected by the use of two or three grams of potassium chloride a day, starting treatment when "dry weight" of the patient is approached. Occasionally the situation of "inappropriate antidiuretic hormone" secretion ensues, resulting in water retention with a normal urinary excretion of sodium in a rather concentrated urine. The resulting water intoxication can cause disorientation, somnolence, coma, convulsions and even death. The treatment is to recognize the syndrome and restrict water intake rigidly to 600 ml. per day or less until the diluted plasma values of sodium and chloride are restored to normal by excretion of the excess water load.

The usual findings of heart failure are well known, but occasionally typical signs may be absent. Interstitial edema, for instance, can occur without audible rales and is best seen by x-ray. It should be suspected when sinus tachycardia greater than 120 is found without shock or fever or other findings to account for the rapid rate.

(2) *Arrhythmias.* Almost any type of arrhythmia may occur as a complication of myocardial infarction and is estimated to occur in 76% of cases. However, paroxysmal auricular tachycardia is one arrhythmia that rarely occurs for reasons still unknown. Should it occur, it can be corrected by the usual procedures such as vagal maneuvers, vasopressors, digitalization, quinidine, lidocaine or cardioversion, in that order of preference.

Atrial premature beats, unless frequent, usually require no treatment other than sedatives. For ventricular premature beats quinidine, gr. iii 3 (or Pronestyl 250 mg.) should be given every hour until controlled and then gr. iii 3 every 4 to 6 hours, avoiding toxic symptoms or prolongation of QT intervals in serial electrocardiograms.

Auricular flutter or fibrillation first requires digitalization to slow the rate followed by quinidine or Pronestyl for conversion if needed. Occasionally direct electrical cardioversion is used when the illness is grave or the rhythm stubborn.

Ventricular tachycardia is considered an

emergency and Pronestyl should be used in increments of 100 mg. every 2 or 3 minutes intravenously, monitored by the electrocardiogram to avoid overdosage, and stopping as soon as the rhythm converts. Usually between 300 to 1000 mg. are needed. Lidocaine intravenously is also useful in doses of 50 mg. (2.5 ml. of 2% I.V. Xylocaine solution, directly I.V.). Dilantin is occasionally helpful while Inderal (Propanolol) is proving to be outstanding. This beta-adrenergic blocking agent should be released for general use shortly. Cardioversion is reserved for patients who do not respond readily to other agents or in emergencies where effectiveness of medication cannot be awaited.

Ventricular fibrillation cannot be differentiated clinically from asystole without the use of an electrocardiogram, since the heart beat and pulse are absent in either case. External heart massage once started should therefore be continued until an electrocardiogram is obtainable. Defibrillation by electric shock should be attempted when ventricular fibrillation is found. If not at first successful, effectiveness can be enhanced by the intracardiac injection of 0.5 ml. of 1:10,000 solution of epinephrin through a No. 22 spinal needle. This should strengthen fibrillation and make it more responsive to electrical conversion. Pronestyl may occasionally be needed for recurrences.

Asystole, on the other hand, frequently responds to external heart massage and mouth-to-mouth resuscitation without other stimuli. Occasionally epinephrin or intracardiac calcium chloride (5 ml. of a 10% solution) will strengthen cardiac contractions. Pacemakers are usually of little avail unless the myocardium is well oxygenated. Most of the patients I see are poorly oxygenated due to the persistence of the original circumstances causing cardiac arrest.

Heart block carries a 45% mortality and is usually associated with infarctions of the diaphragmatic surface which result from occlusion of the right coronary artery. Blocks arising from occlusion of the right coronary are usually transient while those involving occlusion of the left coronary usually result in permanent heart block because the anterior wall and septum are infarcted. The auricles and ventricles, beating separately,

may require a permanent pacemaker if the idioventricular rate is slow enough to cause cerebrovascular insufficiency (Stokes-Adams episodes). Demand pacing through automatic devices attached to cardiac monitoring is quite helpful in such cases. Most gadgetry is so equipped and will prevent most seizures from occurring; instead of a convulsive seizure, the patient complains of the electric shock that he feels from the pacemaker before syncope can occur. It would seem more desirable to have the patient complaining than have the risk of sudden death. Should the episodes be recurrent, a transvenous electrode catheter can be inserted which will supplement the patient's heart beat and is not felt by the patient. Some cardiologists think the intracardiac pacemaker should be used if even a single syncopal episode occurs. The electrode pacemaker usually may be withdrawn from its location in the right ventricle as recovery from heart block occurs. This usually takes two to five days when infarctions of the inferior wall (diaphragmatic) are present. Occasionally a permanent pacemaker will be necessary to replace the temporary one, especially in anterior infarctions. Should a permanent pacemaker be required, quinidine therapy should be used to suppress the competing idioventricular pacemaker. The permanent pacemaker may be directly attached to the myocardium at open chest operation or can be used as a permanent indwelling transvenous catheter with subcutaneous insertion of the attached battery equipment.

Steroids frequently may prevent Stokes-Adams syncope even without affecting the heart block or heart rate; the reason for this is not clear. Without treatment heart block carries a 45% mortality. Isoproterenol (Isuprel), intravenously 2 mg. or 2 ampules in 500 ml. of D5W or polarizing solution, will frequently avoid many of the Stokes-Adams attacks. Rapid heart rate from excessive stimulation of the idioventricular pacemaker by the Isuprel should be avoided as well as irritable heart beats or flushing of the patient from peripheral vasodilatory effects of the drug. Steroids and atropine are quite helpful in heart block. Other than heart block and shock, steroids have little

use in the treatment of myocardial infarction.

(3) *Shock*. The definition of shock is still ambiguous but usually refers to the level of blood pressure, usually below 80 systolic. Just as significant as the blood pressure, however, is the clinical appearance of the patient. Due to poor tissue perfusion the patient has a cold, clammy skin, and changes in sensorium. Should this shock picture persist for one hour or more the mortality rapidly becomes 80% or greater. Immediate emergency measures therefore should be used. These include vasopressors, preferably those with combined inotropic and pressor effects such as levarterenol (Levophed) or metaraminol (Aramine) (alpha and beta adrenergic stimulators). Those containing alpha-adrenergic pressor effects alone (Neosynephrine, Hypertensin, Vasoxyl) have no real place in the sustained treatment of cardiogenic shock. The purpose of the vasoconstriction therapy is to temporarily increase coronary perfusion pressure and coronary blood flow, decreasing the immediate mortality rate in shock, which seems directly proportional to the adequacy of coronary blood flow. Subsequent support of heart work and effective output are necessary for maintenance of blood pressure and may require a change in therapeutic agents and objectives.

As an emergency initiating agent Aramine is as good as any. It is used in 2 to 10 mg. (0.2 to 1 ml.) intramuscularly in the home or may be used directly intravenously only in a dose of less than 0.5 ml. In the hospital, continuous intravenous infusions are used at a drip rate sufficient to maintain systolic blood pressure at approximately 100 mm. Hg. Usually 1 to 3 ampules (100 to 300 mg.) of Aramine is placed in each liter of polarizing or other solution.

Levophed can be used as a more potent agent at the risk of sloughs of the surrounding skin. It is used as 1 to 3 ampules (4 mg. per ampule) in each liter with the addition of 5 mg. of phentolamine (Regitine) which may actually increase coronary blood flow as well as decrease the tendency to slough. Some Regitine can also be injected into the local tissues, should infiltrations occur.

Steroids of most any type are quite helpful in the treatment of shock and seem to

potentiate the effects of vasopressor agents.

Acidosis is a condition that seems to be very prevalent in shock and is often neglected. It is related to the liberation of excessive anoxic metabolites of the lactic acid group which can be neutralized by direct intravenous use of sodium bicarbonate (ampules of 33 $\frac{1}{3}$ m./Eq. This amount can be repeated in an hour if necessary.

It is now thought that digitalization should be used in almost all instances of shock and should be given intravenously. By increasing the contractile force and work of the heart, digitalis may help correct the very cause of cardiogenic shock. Arrhythmias from digitalis therapy should be avoided, but they seem no more prevalent than in cases of noninfarction.

Other measures in treating shock include correction of any arrhythmia and methods of assisting the circulation. These methods include cardiopulmonary bypass machines and computerized counter-pulse boost of diastolic arterial flow. Any blood volume deficits should be corrected by plasma expanders or blood transfusions until the monitored central venous pressure has improved. Hyperbaric-oxygenation may also help but most of these measures are still experimental.

While vasopressors have decreased the immediate mortality in shock by 20%, there may be some other means of reducing the remaining 60 to 70% mortality in some way. Perhaps some of the remaining high mortality may be related to inappropriate persistence of peripheral vasoconstriction. Absence of vasopressor responsiveness, on the other hand, may be due to an uncorrected acidosis or depletion of catecholamines by previous therapy with drugs such as guanethedene sulfate (Ismelin) or reserpine. Whenever unresponsiveness to initial vasopressor therapy occurs, these possibilities should be borne in mind. In the treatment of shock, adequate perfusion of tissues with oxygenated blood is of equal importance as the correction of the low blood pressure. Though vasopressors may insure the head of pressure necessary for coronary perfusion, the resulting increased peripheral resistance from vasoconstriction further aggravates the problem of tissue perfusion and causes increased work load upon

the heart and increased oxygen requirements of the infarcted muscle.

It is also well known that the curve of ventricular function is flattened by either congestive heart failure or by shock. While increased ventricular filling pressure normally causes increased ventricular stroke work, a point is soon reached in the abnormally flattened ventricular function curve where further increase in the filling pressure causes very little increase in stroke work, but can result in a great increase in pulmonary venous pressure and passive congestion of the lungs. It would seem important, therefore, to keep the diastolic pressure low in the left ventricle if pulmonary edema is to be prevented.

The objective in treatment of shock has a two-fold purpose; (1) to restore adequate blood pressure to perfuse vital areas (brain and coronary system), and (2) to restore optimal ventricular function. Recently it has been found that cardiac output actually has been decreased and left ventricular diastolic pressure increased by treatment of shock with prolonged peripheral vasoconstriction, seemingly due to the increased total peripheral resistance.⁶ To decrease this peripheral resistance and to improve cardiac output, peripheral vasodilation (rather than conventional peripheral vasoconstriction) might be more advantageous in selected cases. Peripheral vasodilating therapy in shock might permit increased tissue perfusion and increased venous return which itself could enhance increase in heart output. The resulting increased heart output might help correct the low blood pressure and further improve the peripheral perfusion difficulties. Likewise, very prolonged use of vasoconstrictive agents may so impair tissue perfusion that tissue hypoxia results in increased capillary permeability with loss of considerable amounts of plasma into the tissues, reducing the effective plasma volume. In fact, patients who seem completely dependent upon vasopressor drugs and unable to maintain their own blood pressure after several days of maintenance therapy will usually benefit by blood transfusion or a plasma expander. This correction of effective blood volume will usually interrupt the apparent vasopressor "dependency" and allow recovery to

occur rapidly. Thus the management of cardiogenic shock may be benefited by vasodilator alpha adrenergic blocking drugs rather than the prolonged use of the conventional alpha stimulating vasoconstrictor agents. Other types of shock seem to benefit even more by this type of treatment.

In the modern treatment of shock it now seems to be vogue to monitor the central venous pressure by means of an indwelling catheter passed percutaneously from the arm, femoral or subclavian* veins into the superior vena cava or right atrium. Another indwelling catheter is placed intra-arterially either percutaneously or in the same wound for monitoring the arterial blood pressure. If the central venous pressure is low, intravenous fluids or perhaps dextran are used. After the low venous pressure is corrected treatment of shock is approached by a trial of peripheral vasodilators rather than the usual peripheral constricting agents. If central venous pressure is elevated (pulmonary edema seldom occurs if the venous pressure is less than 150 mm. of water), peripheral vasodilators might be tried without delay, especially if clinical signs of inappropriate peripheral vasoconstriction are present. These signs include cold cyanotic extremities with poorly palpable peripheral pulses in spite of bounding central pulses. Before instituting vasodilator therapy, however, it is essential to have plasma expanding agents available to fill the enlarged vascular bed that appears as vasodilatation occurs. A catheter monitoring system thus permits the venous pressure to be kept more constant, the arterial pressure to be more readily improved and blood volume to be balanced. Certainly, the mild peripheral beta adrenergic stimulators mephentermine (Wyamine) and moderate alpha blocking agents (such as Isuprel 1 mg. per 500 ml. of glucose and distilled water) would be preferable to pure alpha stimulators alone (neo-syneprine, Vasoxyl). Vasodilator therapy, however, would involve the use of alpha blocking agents and would affect only the peripheral vascular bed and not the heart or central system since the heart contains no alpha adrenergic receptor endings. Such vasodilator drugs include phenoxybenzamine (Dibenzylene) 1 mg./kg. I.V., trimethaphan

(Arfonad) by intravenous drip (ganglionic blockade agent), and hydralazine (Apresolene) by repeated intravenous doses of 20 mg. Beta blocking agents (Inderol) are now available but are usually contraindicated in shock therapy. These beta adrenergic blockers are best used in rhythm disturbances and anginal syndromes where coronary vasoconstriction effects are improved. Inderol is beneficial here through beta blockade and coronary vasodilatation.

The agents with combined alpha and beta adrenergic receptor stimulation include Levophed and Aramine. In addition to peripheral vasoconstriction they have an inotropic effect upon the heart. Wyamine on the other hand, is primarily a beta stimulator causing active vasodilatation peripherally and inotropic effects centrally with increased heart rate and output with only slight increase in blood pressure. This effect of Wyamine would seem to be desirable since it results in an increased peripheral flow without an increase in peripheral vascular resistance. The use of Wyamine has been recommended as an intermediary agent between complete vasopressor therapy on one hand and complete vasodilator therapy on the other, until the correct treatment of cardiogenic shock becomes apparent in each individual case.

In summary, prolonged vasoconstriction found in many states of shock might be deleterious except where it preserves coronary and cerebral perfusion. This is especially so if prolonged vasoconstriction shifts the blood volume from the systemic into the pulmonary circulation, causing a tendency to pulmonary congestion aggravated by the increased peripheral vascular resistance which could also produce cardiac overload. This might also decrease tissue perfusion and cause progressive metabolic acidosis, further aggravating the shock. Any persistence of an increased venous pressure and decreased pulse pressure in a patient with shock should suggest an "inappropriate" prolongation of peripheral vasoconstriction. In these patients a selective use

of peripheral vasodilating therapy might be helpful if the central venous pressure is first corrected and maintained by intravenous fluids. There is still a dominant group of conservative cardiologists who believe that peripheral vasodilator therapy may actually cause an increased mortality in some cases by decreasing the minimum pressure needed for adequate coronary perfusion.⁷ Peripheral vasodilatation therapy at present, it would seem, should be used on a selected basis. Meanwhile, Wyamine would be the intermediate type of drug of choice in the treatment of cardiogenic shock in routine cases, using Aramine initially to insure coronary perfusion when needed.

(4) *Pulmonary embolism.* This is treated with anticoagulants, using vena caval ligation if embolism is repeated when anticoagulant levels are considered adequate. The majority of emboli seem to arise from the lower extremities and pelvic structures (85% of cases). Most emboli do not cause infarction of the lung and hence cause little x-ray or electrocardiographic evidence of their existence. Should a massive pulmonary embolus occur, angiocardiograms would be needed if visual localization is necessary, but an embolectomy should not be considered unless a team trained in this procedure is available and a pump-oxygenator is ready for use. Drugs that might be indicated include atropine, papavarine, digitalis and corticosteroids.

(5) *Peripheral arterial emboli.* Peripheral arterial emboli may dislodge from mural thrombi overlying the infarcted area of myocardium. If the collateral flow in the area is considered inadequate, these emboli should be removed by open arteriotomy within 2 or 3 hours of their formation.

(6) *Cardiac rupture.* This is usually sudden and fatal and most likely to occur in the first week after infarction. In rare cases rupture will be "slow" in which case the possibility of removing accumulations of blood from the pericardium through needle aspiration might prevent fatal tamponade until emergency surgical repair of the rupture can be done.

(7) *Rupture of papillary muscles or of the intraventricular septum.* This usually occurs in the first 2 weeks after the infarc-

*The subclavian vein can be entered by an Intracath needle puncture just beneath the midclavicle, directing the needle toward the opposite mastoid area and entering the superior vena cava for direct pressure measurements and infusions.

tion. The ensuing congestive heart failure is almost inevitable and is usually severe and fatal. However, the few patients responding to treatment for heart failure might be able to withstand a surgical repair. Preferably, confirmation of diagnosis by angiocardiograms should first be done.

(8) *Postinfarction syndrome*. This is an unusual complication which may occur as early as one to two weeks after the infarction and is manifested by pericardial rub and fever which lasts 3 to 5 days. This usually subsides with steroid therapy which should be maintained for five to seven days or until recovery is stable.

Experimental Therapy of Shock

(1) Treatment of shock with alpha adrenergic blocking agents is now in vogue in selected patients where such vasodilator therapy (rather than conventional peripheral vasoconstrictive therapy) seems indicated. Emphasis is more on relief of cardiac overload than on maintenance of blood pressure alone.

(2) A new era of therapy with beta-blocking agents is now available for arrhythmias complicating myocardial infarction. The most promising of these is Inderal (Propranolol). Since the heart contains purely beta and no alpha sympathetic receptors, only drugs stimulating or blocking the beta receptors would affect the sympathetic nervous system functions in the heart. Thus, Inderal, a beta-blocking agent, reduces the conductivity and excitability of the heart muscle and is also helpful in the treatment of angina. Its side effect would be decreased heart work to the point of actual heart failure.

(3) Hyperbaric oxygenation is still experimental and seems to be proving useful as shown by some of the mortality studies.

(4) Hypothermia has little clinical use in the treatment of myocardial infarction thus far.

(5) Cardiopulmonary bypass apparatus and implantable "artificial hearts" are receiving notoriety beyond their present use-

fulness, but remain a most promising tool for the future.

(6) Computerized counter-pulsation therapy provides a means for intra-atrial boost of peripheral pressure during diastole, as another effective means of blood pressure support.

(7) Recently, out of Miami, excisional therapy of acute infarctions has come under study. It seems that experimental surgical excision of acute infarctions induced in dogs has considerably improved the mortality rate. The resulting post-coronary state is reported to have an excellent coronary flow demonstrable across the sutured site by subsequent coronary angiograms.

(8) As a final comment, future trends in the treatment of myocardial infarction will undoubtedly need constant revision, while the basic principles of therapy will probably remain the same. Each of us should continue to strive in our own observations and experience to stabilize the ever-swinging pendulum of medical therapeutic thought, and mould it into something that is tangible and currently useful in the every day practice of medicine and the bed-side treatment of myocardial infarction, the leading cause of death in our populace.

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An experience as described here will of certainty make the physician more aware of the importance of the interview in understanding a patient's personality and the factors playing a role in psychosomatic disease.

Training in Psychiatry for Interns*

JAMES A. WALLACE, M.D., Memphis, Tenn.

Although psychiatric training for interns has been provided in certain areas for some time, the literature contains few reports of this phase of their medical education.

Daniels and Magliocco¹ described the program at the 60-bed acute psychiatric unit of the Cincinnati General Hospital. The authors, while third year residents and with the assistance of 6 first year residents, conducted the one-month training. Interns received 8 hours of individual teaching and 11 hours of group teaching each week. They rated interview technique and individual case supervision as the most valuable elements of their experience in psychiatry.

Hollender² described a mixed internship in psychiatry and medicine (or pediatrics) at the Upstate Medical Center of the State University of New York. The interns had 6 months' training in psychiatry and an equal period in either medicine or pediatrics. During the period of training in psychiatry the intern evaluated and treated patients, was given individual supervision, participated in conferences and was encouraged to undertake research projects. In a paper published in 1965, Hollender³ reported the 5 year experience with this program. Of the 50 applicants, 46 planned to become psychiatrists. According to this author, "Not only had the vast majority of applicants decided to become psychiatrists but a very large percentage had reached this decision before entering medical school or very shortly thereafter." The faculty thought that the interns performed as well as first year residents.

Bagatell, Goldfarb, and Fox⁴ described a one-month elective training program in psychiatry at the Adult Psychiatric Clinic of the Stamford Hospital at Stamford, Connecticut. Goals were for the intern to un-

derstand patients' emotional needs with emphasis on psychosomatic illnesses. Results indicated that the intern learned to detect psychologic factors in illness and to properly treat ambulatory psychiatric patients. This program was of mutual advantage to the interns and to the staff of the clinic.

Ellis⁵ outlined, as requirements for such a program, the following: history-taking, physician-patient relationship, diagnosis and therapy, psychiatric referrals and supervised interview. He described the pilot program at the psychiatric unit of the Los Angeles County General Hospital which provided 3 weeks' training in psychiatry for rotating interns.

Wallace⁶ discussed the role of the psychiatric hospital in the training of interns in psychiatry.

Participating Hospitals

The purpose of this report is to describe the organization, goals and benefits of a training program in psychiatry for interns that involves a large general hospital and a small State psychiatric hospital. Since March 1963 the Tennessee Psychiatric Hospital and Institute has offered training in psychiatry, on an elective basis, for the interns of the Baptist Memorial Hospital. This program has been under the direction of the Superintendent and the Clinical Director of the Tennessee Psychiatric Hospital and the Director of Training of the Baptist Memorial Hospital.

The Tennessee Psychiatric Hospital and Institute is a 175 bed hospital, opened June 1, 1962, and operated by the Department of Mental Health of the State of Tennessee for purposes of intensive treatment, training and research. This hospital is affiliated with the University of Tennessee College of Medicine for psychiatric training of resident physicians, medical students and student nurses. The average stay of patients is 50 days and a wide variety of psychiatric cases are admitted.

* From the Tennessee Psychiatric Hospital and Institute, and the Department of Psychiatry, University of Tennessee College of Medicine, Memphis, Tenn. 38103.

The Baptist Memorial Hospital is a 1074 bed general hospital that has been in operation since 1912. The two hospitals are located in the Memphis medical center which also includes the University of Tennessee Medical Units, City of Memphis Hospitals and various other hospitals and clinics.

Program

The Baptist Hospital intern is accepted for a period of one or two months' psychiatric training. He is assigned to one of the hospital's 24 bed units where he works under direct full-time supervision of a staff psychiatrist. He is assigned patients to work-up and follow under supervision. The intern is instructed in the use of the various tranquilizer and anti-depressant drugs and assists in administering electroconvulsive therapy. In his work on the unit, proper history taking and patient evaluation are emphasized.

Since each unit is conducted on a team approach the intern learns to work with ancillary personnel, such as the psychologist, the social worker and the adjunctive therapist. In addition to his work with the physician-supervisor the intern attends case conferences held for the resident physicians and weekly hospital teaching conferences.

Evaluation by Staff Physicians

The interns in this program were supervised by four of the staff psychiatrists. Each supervisor was asked to answer the following questions:

(1) From the following list, please indicate four chief goals of the training program in psychiatry for interns: (a) patient evaluation; (b) diagnosis; (c) drug therapy; (d) psychotherapy; (e) electroconvulsive therapy; (f) interview techniques; (g) working with treatment team; and (h) other.

(2) What do you consider the benefits of this training?

Goals of Training

There was uniform agreement that patient evaluation, drug therapy, interview technique and diagnosis should be the chief goals. The intern is taught to relate to and to evaluate the patient as a human being rather than as a group of symptoms.

Learning about the tranquilizer and anti-

depressant drugs is an important part of the training program. The doctor is taught the proper drug to use, correct dosage, and to recognize side-effects due to drugs.

He learns proper interview technique by observing his supervisor conduct interviews with patients. Later, the trainee conducts the interview with the supervisor as observer. None of the physicians felt that psychotherapy should be considered a goal in this brief period of training.

The intern is required to become familiar with the *Diagnostic and Statistical Manual of Mental Disorders* published by the American Psychiatric Association. He learns symptoms of the various psychiatric syndromes and something of their differential diagnosis.

Benefits of Training

The staff physicians felt that psychiatric training would be of definite benefit to the intern in that it would:

(1) Provide the opportunity for the holistic view of the patient and foster understanding of the inter-relation between physical, psychologic and social functioning.

(2) Offer practical experience in recognizing, evaluating and managing psychiatric problems in his own practice; and in making appropriate referrals.

(3) Teach him the proper use of basic psychiatric drugs.

(4) Provide brief review of clinical psychiatry which should be of value in his future practice of medicine.

Follow-Up Information on the Interns

During the period March 1963 to October 1966, a total of 15 doctors have been accepted in this program with 11 participating for one month and 4 for two months.

Follow-up information on the 15 interns is given in table 1.

Residency training	
Psychiatry	4
Radiology	1
Ob-Gyn	1
Ophthalmology	2
Pediatrics	2
General practice	1
Military service	2
Clinical psychology and	
Research in alcoholism	1
Still in internship	2
	—
	15

Discussion

This report shows that staff physicians regard this particular program as beneficial to the intern and indicate the chief goals as patient evaluation, drug therapy, interview technique and diagnosis.

Although the program was not developed to recruit physicians for residency training in psychiatry, follow-up information reveals that 4 of the 15 doctors are at present residents in psychiatry. Also, one of the two physicians still in internship plans to take a residency in psychiatry. One former intern received his Ph.D. in clinical physiology and at present is medical director of the Alcoholic Rehabilitation Unit at this hospital and also conducts research in alcoholism.

The success of this program has been due to the interest shown by the staff psychiatrists in training the interns and to the good communication between the two hospitals. When offered a planned program under proper supervision the intern should have a valuable learning experience in psychiatry.

Summary

(1) A review of the literature on psychiatric training for interns has been given.

(2) The program involving a general hospital and a psychiatric hospital for this type training has been described.

(3) Evaluation of the program was obtained by means of a questionnaire to the staff physicians.

(4) Follow-up information on the interns reveals that a significant number are taking residencies in psychiatry.

(5) The success of intern training in psychiatry depends on the proper type of supervision.

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Murfreesboro—Vacancies: Staff Physicians

For 1275-bed Neuropsychiatric Hospital, including 350 general medical and geriatric. Modern facilities for diagnosis and treatment of mental illness. Salary \$15,106 to \$23,013, depending on qualifications; fringe benefits, cost of moving to Murfreesboro will be paid by Veterans Administration; visit here for evaluation can be arranged at our expense. Excellent educational opportunities for students in this area. Contact Director, Veterans Administration Hospital, Murfreesboro, Tennessee.

General Practitioner

Who is interested in entering the field of industrial medicine with the Aluminum Company of America, Alcoa, Tennessee. Contact: J. S. Phelan, M.D., Alcoa, Tennessee 37701.

The Changing Concepts of Mental Health Care*

Annually Americans, through local, state and federal governments, spend about three billion dollars in support of mental health care. Most of this money goes to maintain a population nearly the size of Detroit's in mental hospitals. Yet many mental patients don't belong in such institutions.

According to modern psychiatric thought, they belong in their own community—at home—not miles away. "Institutional care may have seemed the only solution at one time, but we know now that it can be more of a detriment than a help," said Hamilton C. Ford, M.D., of the American Medical Association's Council on Mental Health. "There has been a revolution in the treatment of the mentally ill in the past decade and this in turn has revolutionized our way of looking at mental illness.

"In the language of this missile age, it's time to start phasing out many of our centralized mental hospitals, just as these hospitals phased out the ancient concept of insane asylums not so many years ago."

Just as emphatic is Robert H. Felix, M.D., dean of St. Louis University School of Medicine and former director of the National Institute of Mental Health at Bethesda, Md. "Based on what we have learned," he declared, "the concept of a large mental hospital as the most desirable place for a sick mind seems rather ridiculous. There is no valid reason why mental illness cannot be treated like any other illness—in a doctor's office or a local hospital if necessary." There are years of precedent against such a stand, but apparently precedent is going to have to stand aside if we're to make inroads against the growing problem of mental illness.

The first true mental hospital in this country was built before the Revolution at Williamsburg, Va. It was not for another hundred years, however, that states took over full responsibility for mental illness

and centralized hospitals came into being. Sheer size ultimately proved to be no answer, and in recent years the trend has been toward smaller, although still somewhat centralized, state hospitals. The new accentuation goes still further, and aims at decentralization on a grand scale. The idea is to put mental health squarely up to the individual communities under high quality state standards. Only in this way, mental health planners feel, can truly effective programs be worked out and the whole spectrum of problems, ranging from those of the anxiety-wrought housewife to those of the criminally insane, be fully met.

Several states have already passed legislation designed to stimulate comprehensive community health centers, and legislation is pending in others. In these communities where it has been tried, results are extremely gratifying. In fact, after a five-year study of the results, the Council on Mental Health in 1962 urged nation-wide application of the concept. A start toward working out the intricacies of such a vast undertaking came a year later with Congressional approval of federal matching grants for community centers.

The crux of the problem is how to get medical care for mental illness essentially on the same footing as traditional medical care. This may sound simple and uninvolved, but is not, for it represents a radical departure from the past. "Since medieval times the idea has been to segregate the mentally ill," explained Dr. Ford. "Perhaps this was often all that was possible when the average stay in an institution was 30 years. It is not true today when a period of weeks is often the rule. You can't look at psychiatry as a plug-along affair anymore. Drugs—an array of sedatives, hypnotics, tranquilizers and stimulants—new hospital techniques, out patient services, group therapy and many other factors have given psychiatry the momentum of atomic physics."

The impact of all this on mental health and mental institutions is startling. At

*Science Feature Article, American Medical Association.

Worcester State Hospital in Massachusetts, the application of the new forms of treatment decreased the patient population nearly 40% in 5 years and closed down 10 wards.

But if the technique works so well in large institutions, why shift the base of mental health care to the community? To Dr. Felix the answer is obvious. The patient does even better in his own community. "Each of us lives in a community, or more to the point, in a neighborhood," he explained. "When, for psychiatric reasons, we can't quite make it among our neighbors anymore, we've got to get help. Now, when a person needs help, that is not the time to wrench him from his family, his friends, all that is familiar to him, and deliver him to an institution. The first thing he has to do in an institution is get re-adjusted, and this can impose a severe jolt when he does not even see many normal people, except for the staff, and sometimes is too far from home to have visitors regularly. What the mental patient needs as much as drugs and techniques is a good therapeutic environment. Some of our better institutions literally spend millions creating a home-like atmosphere. But nothing can be more home-like than your own neighborhood and friends. Also, you have to consider that he got sick in his own neighborhood, when he gets out he has to go back there, so he ought to be treated there. Otherwise, he may come to the conclusion that the only thing to do is run away. Going to an institution is running away, in a sense. That's why I say it is ridiculous to think that institutionalization is the best way to make people well. It may work, but it's the long dark way to recovery."

Big institutions have certain other inherent defects, Dr. Felix believes. Too many people who need help and know it, will shy away for fear "of being sent away." Then too it is often a case of the "big institution over the hill" being out of sight, out of mind. Their isolation—and they can be isolated in a city as well as in the country—and the fact that patients are congregated there from such a wide territory, has the public looking at many mental institutions "more like an industrial complex than a hospital," Dr. Felix said. This breeds

public apathy and lack of support. Not only does the hospital get lost in the public mind, the patient sometimes gets "lost" within the big hospital. "The involved mechanism needed to run a big institution often prevents an individual from getting the personalized care he needs so desperately," Dr. Felix said. "It might take months to get him into the proper line of treatment, and these are the early months so very important to his recovery. In contrast, the principal objective of the whole new program is to make seeking help for mental illness as simple and uncomplicated as getting medical attention for a tummy ache."

Working at the community level, care can be quick and intensive. The waiting lines, the procedural complications that often bog down so many mental hospitals are minimal. To get help a person would have to look no further than his family physician. Many emotional and mental problems can be resolved right there. Those patients who do need special attention would be referred to a psychiatrist, just as the family doctor now will often call in a surgeon to remove a diseased gall bladder. If hospitalization is required, then the patient would be admitted to his local hospital or mental health center. This could involve either full or part-time care. After discharge, or perhaps as the only care necessary, the patient might be seen in a community outpatient facility. No matter what the course of treatment, the aim is to interrupt the patient's day-to-day life as little as possible. In some cases hospitalized patients might even continue to work, the only difference being that they would leave for the office from the hospital and return there at night.

There is almost unanimous agreement among psychiatrists that working through the family doctor offers a tremendous advantage in the care of the mentally ill. "No reason exists why any physician can't treat mental illness just as well as any other common ailment," Dr. Felix said. "And, when the same man who has treated a patient for other ailments in the past treats him for a mental disorder, the patient comes to realize there is nothing strange or bizarre about mental illness. There's not all the brow-beating that some patients

heap on themselves." Also, no one is in a better position to spot early signs of emotional disturbances than the family doctor. He sees it often enough in his normal work—patients with symptoms but no apparent organic causes of disease. Even when a patient is referred to more specialized care, it is often extremely helpful if the family doctor acts as a buffer for the patient and follows through the treatment.

That most physicians cannot play this role at present is due in part to the fact that mental health care has been oriented away from him. There are few accessible facilities where he can see his mental patients, and practically none for testing or followup services. Neither can most physicians be on the staff of state hospitals, if for no other reason than it's often too far away. Nearly all physicians do, however, belong to the staff of the local hospital and there he could see his mental as well as other patients—if the hospital has mental health facilities. These are generally lacking. To provide the needed beds, the room for new therapy centers and the space for allied services, lawmakers have enacted legislation to spur the building of mental health centers. Under this program, local, state and federal money is pooled to make possible expansion of existing hospitals or the construction of new ones.

On the surface this sounds like a pretty tall order, for today as many hospital beds are devoted to mental illness as all other illnesses combined. We're not, however, going to have to double bed space in our general hospitals—not if modern psychiatric care can be put on a firm footing at the community level. In fact, the bed-space needs of psychiatry can probably be reduced, for with good care many mental illnesses can be treated better out of the hospital than in. Studies at many institutions have demonstrated this. A group of psychotics treated as out-patients at Manhattan Hospital were away from their jobs only 6 weeks. A similar group who were institutionalized, spent 6 months in the hospital and had to recuperate at home after they were released. At the Metropolitan State Hospital, Norwalk, Calif., another study showed that even severely ill schizophrenic patients could, after a period of hospitaliza-

tion, be well cared for out of the hospital with as little as 20 to 30 minutes of individual psychotherapy once a month. It was also found that some of the treatment could be handled by non-professional personnel, called psychiatric aids, who worked under the direction of a psychiatrist.

Another reason why we don't need to double bed space in local hospitals is that nobody is considering scrapping the entire network of state hospitals. For one thing, some people have been in mental institutions so long they cannot be brought out. For another, the centralized institution still has an important role to play. The emphasis, however, is changing. Instead of trying to be all things to all types of mental patients, institutions are becoming more specialized treatment centers—just as we now have special hospitals for eye and ear ailments, children's diseases, etc. In other words, people will not be put there so they can be controlled. They'll be put there because they need the special kind of treatment that can be offered—group therapy or long term rehabilitation, for instance.

Hospital beds and centers are not all that are needed. To make a "go" of community mental health care we also need agencies and facilities to handle special problems such as children, the senile and alcoholics. We're going to need rehabilitation facilities, foster homes, emergency services for such things as suicide prevention, visiting services for people at home and home-maker help for women who need it. Nevertheless, says Dr. Felix, all of this can be phased in with ultimate savings of many millions annually. "With the kind of energized treatment that would become possible, we're not going to have the chronic problem of where to store people who won't respond because we didn't get to them fast enough. We're going to be better able to take advantage of existing volunteer and public supported services, and we're going to have more people who can pay for mental treatment through private means and not rely on the state. You can see this effect already in medical insurance. A few years ago insurance companies couldn't afford to cover mental illness because treatment was so drawn out. Today several big companies cover mental illness like any other, and

more will follow suit. Insurance in itself will eventually be a tremendous help, because when a man is covered by insurance he is not afraid to seek early help when he needs less care. Indeed, the freedom from worry over possible financial catastrophe if he becomes mentally ill, can help relieve a man's mental pressures."

Although the impact of modern psychiatric thought is well on the way to shaking the foundations of mental health care in this country, the basis for this "new" wave of thinking is far from new. In surprisingly modern language, the founders of the Pennsylvania Hospital (including Benjamin Franklin) expressed the belief that mental illness should be treated in the community and should be a part of the care offered by a general hospital. This hospital, the first in the United States, was chartered at Philadelphia in 1753, nearly 20 years before the first mental hospital at Williamsburg.

During later decades, however, this policy got little more than lip service at other than a few enlightened hospitals, and the generally deplorable treatment of the mentally ill led to the reforms and centralization of the nineteenth century. Despite good intentions, centralization too produced its faults, principally unwieldiness and depersonalized treatment. And, with the modern tools of psychiatry, the central hospital lost many of what advantages it did offer.

"I can't think of one category of patients that does better in a centralized institution," says Dr. Felix. "Acute psychotics shouldn't be treated there. We know they do better in familiar surroundings. Neither should the semi-acute. They develop 'hospitalitis' and withdraw further into unreality, thinking that the world has withdrawn from them. It's like a dead end for the chronic psychotic. At Philadelphia Hospital they took a group of these people whose average stay had been 13 years, put them in

open, unlocked wards, gave them small responsibilities and even got them downtown shopping. Within two years 80 per cent of these patients were out of the hospital and half were holding jobs. Furthermore, all but six or seven per cent stayed out. That's what personalized care can do. The same holds true for neurotics. It has been my experience that all of these patients need personalized care, and this you just can't get in most big institutions. Children, seniles, alcoholics, all do better when they retain their community ties."

What about the dangerously ill—those who might harm others or themselves? There are few of these, replies Dr. Felix, about one out of every two or three hundred mental patients. This problem is not so prevalent that it cannot be handled in general hospitals. "The problem has been," he said, "that whole mental hospitals have been geared to the dangerous patient. This has resulted in the downgrading of all other patients. If you make it clear to a patient 'I don't trust you, I am afraid of you,' the patient soon gets the message and behaves accordingly. Besides, we can usually handle the suicidal patient with drugs. If he's depressed, for instance, he can be given energizers and after a period of treatment with these—even ten days—and some personalized attention, we can pretty well say he's not going to commit suicide. Then we can tackle the rest of his problem in basically the same manner as the non-suicidal."

All of this seems to prove that Ben Franklin started off on the right idea—and most modern psychiatrists are certain that he did. "We've had centralized hospitals in various forms for nearly 200 years," said Dr. Felix. "Yet at no time during this period has America had adequate mental health facilities on a national scale. We can only conclude that mental illness must be whipped at the grass roots."

The History of Meniere's Disease*

J. C. GROS, M.D.,† Memphis, Tenn.

Since the times of the Greeks vertigo has been a well known symptom, and until 1860 it was considered a manifestation of cerebral disorder. Because its sudden onset was similar to that seen in the cerebrovascular accidents, it was believed to be the symptom of a mild form of a cerebrovascular accident, the then so-called "apoplectiform cerebral congestion."

On January 8, 1861, a paper entitled "Report About Lesions of the Inner Ear Originating the Symptoms of Apoplectiform Cerebral Congestion" appeared in the program of the French Academy of Medicine.¹ In spite of the lack of interest with which this paper was received as reported by some of those attending, destiny has appointed it to become a historic document.

The author was Prosper Meniere, a 60-year old physician who was Attending Professor of Internal Medicine on the Faculty and Head of the Imperial Institute for Deaf-Mutes. This double qualification of Meniere as an internist and an otologist made him the right one to give the appropriate interpretation to certain experiments upon the inner ear and vertigo which had been made and reported earlier by the physiologist Flourens and neurologist Purkinje. Meniere correlated these experiments with the symptoms he had observed in his patients. In his conclusions on that day Meniere, for the first time in medical history, stated that:

(1) "Disturbances of function in the inner ear may give rise to dizziness, staggering and falling, accompanied by vomiting and syncope.

(2) "These symptoms appearing as intermittent attacks are followed by deafness more and more severe, or the hearing may be completely abolished, and

(3) "Autopsy evidence indicates that the

organic lesion is situated in the semicircular canals."

A new disease, to which soon was attached to the name of its discoverer, began to arouse the interest of otologists, neurologists and internists. For almost eighty years, because of the lack of reliable pathologic reports, they were moving in an empiric field, and almost every author had his own concept of the disease.

During this period, widely varying theories were advanced to explain the etiology and pathology of the disease, and many therapeutic efforts were made to control its distressing symptoms.

Because a second autopsy, made in 1889, in a case of leukemia presenting the symptoms described by Meniere revealed the presence of blood in the labyrinth, the hemorrhage was considered then and during subsequent years as the cause of the disease.² But in the initial clinical picture described by Meniere there was a fluctuation of the hearing, at least after the first attacks. This evolution was not consistent with an hemorrhage in the labyrinth.

Many other causes were advanced:

ATTRIBUTED ETIOLOGY OF MENIERE'S DISEASE^{3,4} (1861-1938)

Hemorrhage, leukemia
Toxic impregnation of the labyrinth
Circumscribed angioneurotic edema
Vasospasm
Arteriosclerosis of brain vessels
Arteriosclerosis of internal auditory artery and vertebral artery
Intracranial hypertension of the lateral cysterna
Troubled water metabolism
Troubled sodium metabolism
Focal infection.

Many of these theories have been of unquestionable value. In 1919, Lermoyez⁵ advanced the idea supported by Portmann,⁶ in 1928, that a spasm of the internal auditory artery interrupting the blood flow in the labyrinth originated the symptoms; just as it occurs in the limb vessels which provokes the symptoms of the Raynaud's disease. The sequence of this theory was that drugs like pilocarpine and epinephrine known to

*Lecture Given in a Postgraduate Course in Otolaryngology at the University of Tennessee College of Medicine in October 1966.

†From the Department of Otolaryngology, University of Tennessee College of Medicine, Memphis, Tenn.

have influence on the autonomic nervous system began to be used.

The concept by Myging and Dederding,⁷ in 1929, that a troubled water metabolism was the main cause, was modified by Furstenberg⁸ in 1934, who considered the defect more in the sodium metabolism, was valuable from a therapeutic point. Restriction of water, diuretics, physical exercises and loss of weight recommended by Myging and Dederding and Furstenberg's diet combined with ammonium chloride by mouth and sodium restriction were reported as giving good results. In many patients having the Meniere syndrome, and responding successfully to a salt-free diet, interruption of the diet provoked the reappearance of the vertiginous attacks followed by deafness, seemingly demonstrating that sodium retention had an important role in the origin of the disease.

These treatments represented a positive advance in comparison with the treatment used in the days of Meniere when a neurologist, Charcot, recommended the treatment with quinine, leading to the death of the labyrinth and subsequent disappearance of the symptoms with irreversible deafness.

In the meantime different operations were proposed to control the symptoms in instances which did not respond to medical treatment.

In 1926, Portmann⁹ began to drain the endolymph with an incision of the endolymphatic sac, made through a trans-mastoid approach. As one reflects upon later discoveries, this operation seems to have been the more logical at that time. In 1928, Dandy¹⁰ proposed section of the eighth cranial nerve through a suboccipital approach as the treatment of choice in unilateral Meniere's disease; years later he limited the section to the vestibular branch, and in this way the most distressing vestibular symptoms were cured and the remaining auditory function saved. In 1937, Ombredanne¹¹ definitely recommended the section of the vestibular nerve as the best surgical treatment for Meniere's disease when the patient had not benefitted from medical treatment.

At the end of this period, the concept of a "transitory labyrinthine edema" or a sort of "labyrinthine glaucoma" as the main lesion in the inner ear causing Meniere's disease

was gradually gaining the support of researchers.

The second period in the history of this disease began in 1938 when Hallpike and Cairns¹² had the opportunity to do autopsies on 2 patients who had died after the intracranial section of the eighth nerve. These 2 autopsies, performed with the latest achievements in pathologic technic cleared up the true lesion of Meniere's disease.

What Hallpike and Cairns found in their microscopic studies of the temporal bones was a remarkable distension of the cochlear duct, with dislocation of the elastic membrane separating it from the scala vestibuli, damage in the auditory cells and in other structures of the cochlea; these findings have also been confirmed in further studies made by Lindsay and Schucknecht.¹³

In this second period new causes, with treatment based on the concept of endolymphatic hydrops, were advanced.

ATTRIBUTED ETIOLOGY OF MENIERE'S DISEASE (1938-1966)

- Sunstroke
- Allergy
- Nutritional imbalance
- Viral infection
- Autonomic dysfunction
- Stress
- Endocrine deficiency

Three new symptoms were added to the classical symptoms described by Meniere,—namely, recruitment, diplacusis and aural fullness. Recruitment is an imbalance in the hearing of the affected ear, resulting in deafness for sounds with weak and medial intensity, and normal hearing or possibly hyperacusia for those with great intensity. Diplacusia is the perception of the same sound with different pitches in the normal and in the affected ear. Aural fullness is the sensation felt in the early periods of the disease of a deep pressure into the affected ear.

The presence of a vascular episode producing an increase of the endolymphatic fluid appears as very possible today.

In the literature we find the association of Meniere's symptoms with some forms of well-known vascular headaches. It has been said that the evolution of cluster headaches is similar to the evolution of attacks of Meniere's diseases.¹⁴ Association with

migraine has been pointed out by Atkinson,¹⁵ who recommends in the very onset of Meniere's attack the administration of ergotamine tartrate or methysergide maleate (Sansert), which have proven successful in this type of vascular headache.

In 1950, Hilger¹⁶ described the full Meniere's syndrome with the interruption of the blood supply in the labyrinth at the level of the internal auditory artery. Naturally all the structures of the inner ear were deprived of nutrition, causing all the symptoms already described. In the same way he pointed out a special form of the disease when the auditory symptoms comprise most of the manifestations of the disease and where the interruption was only at the level of the artery giving the blood supply to the lateral wall of the cochlear duct.

What is the mechanism by which these vascular changes produce endolymphatic hypertension? We need to accept that even though today we know the pathology of the disease, its cause is still only hypothesis.

Only recently it seems that Meniere's disease has been produced experimentally, and we are unaware of the systemic disorder which may be the genesis of the vascular disturbance or of autonomic imbalance.

If the history of all Meniere's patients had always been taken carefully, it might have been possible to ascertain the frequency with which the symptoms have appeared in relationship to menopause, stress or hypometabolic syndrome. However, without this information researchers are in disagreement in their conclusions relative to the role of the endocrine system in the origin of Meniere's disease. However, if the history is suggestive, possibly thyroidal, gonadal or adrenocortical insufficiency should be investigated.

Allergy has been mentioned by Williams¹⁷ as a possible cause; he has been the author of an interesting book on Meniere's disease and those interested in extending their knowledge on the subject are referred to this.¹⁸

The conscientious physician will learn everything possible about his patient, keep him informed about his disease, and especially alert him to characteristic exacerbations which may appear regardless of the treatment used. When there is a good doc-

tor-patient relationship the patient has more confidence, and the doctor learns more about the disease.¹⁹

We may summarize the present status of Meniere's disease in 1966 as follows:

Symptoms. Attacks of vertigo with deafness, and nonpulsating tinnitus (Meniere 1861); diplacusis (Shambaugh 1940); recruitment (Fowler 1945); and aural pressure (Hilger 1950).

Etiology. Vascular dysfunction, hormonal insufficiency, and stress (Hilger 1964); autonomic imbalance traced to the hypothalamus (Lindsay 1964).¹⁹

Pathology. Endolymphatic hydrops (Hallpike and Cairns 1938).

Diagnosis. History, acoustic tests, and vestibular examination.

Treatment. (a) *Medical:* vasodilators, peripheral blocking agents (atropine-like drugs), correction of endocrine deficiency, and salt restriction; (b) *surgical:* Incision of endolymphatic sac (Portmann 1926); partial destruction of the labyrinth with ultrasound (Arslan 1953); shunt of endolymph to arachnoid space (House 1964); or to epidural space (Shea 1965).

There has not been uniform response to treatment, suggesting that the disease may be caused by different influences leading to autonomic imbalance, the vasomotor disorders and the changes in the labyrinthine fluids.

This is the present state of our knowledge of Meniere's disease. Other operations and other medical treatments have been proposed, and there is a copious literature covering the operative procedures and treatments. In this paper, however, only the procedures and treatments which are presently in use have been recorded. As one can see, the original description given by the physician for whom the disease was named was accurate enough to be considered a pattern today.

From his youthful days as a doctor Meniere showed great promise in his many professional achievements. He was the type of young doctor that any medical student would like to become. He was highly respected by his associates and was the friend of writers and novelists of his time. Balzac,²⁰ the well-known author of *The Human Comedy*, became acquainted with Meniere when he was but an intern and was sufficiently impressed to portray him in the first editions of one of his more celebrated novels.

Describing a physicians' meeting around

the bed of a seriously ill patient, Balzac, in the literary style of his time, described Dr. Prosper X. who was none other than the young Dr. Prosper Meniere, as follows:

"The fourth doctor was a man with a great scientific future; he was perhaps the most distinguished among the interns of the Hotel-Dieu Hospital; learned and modest representative of the hard working youth, who are ready to accept the heritage of treasures deposited after fifty years by the Paris school, and who perhaps will build the monument profiting from the material provided by the former centuries."

Five years ago, in 1961, almost all the Ear, Nose and Throat scientific journals commemorated the first centennial of that paper presented by Meniere before the French Academy of Medicine in 1861. The course of medical history has proven that the prediction of Balzac was surprisingly correct.

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Lung Surfactant: A Review*

JOE L. WILHITE, M.D., and JOHN NICKLESS, AAIT, Madison, Tenn.

The walls of the alveoli consist of a dense network of anastomosing capillaries, isolated perivascular cells, which are contained in a thin-wall ground membrane in which the supporting reticular and elastic fibers lie. In specialized alveolar epithelial cells a lipoprotein, the chief lipid is alfa dipalmitoyl-lecthin, is produced in the osmophilic lamellar inclusions.¹ This lipoprotein is termed the surfactant. Thirty-six years ago, Neergaard² stated that the properties of pulmonary alveolus surfaces must influence the function of the lungs. In 1954, Macklin³ suggested that the specialized alveolar epithelial cells regulated these properties. This surface acting substance plays an important role in maintaining stability of the alveolus by surface tension.

Clements and associates⁴ obtained pulmonary surfactant by rinsing saline through the lung's airways and by extracting it from minced lung with saline solution. They found that surface tension less than 10 dynes/cm. could be obtained in extracts from normal lungs. Klaus⁵ pointed out that specific phospholipids must be present in lung extracts if surface tension less than 10 dynes/cm. are to develop. Tierney⁶ inactivated lung extracts so that the surface tensions are always more than 20 dynes/cm. In experimental animals the surface tension is reduced one year after bronchopulmonary sympathetic and parasympathetic denervation.⁷ Collier⁸ showed that there was a definite loss of surface activity in oxygen poisoning—the exact role of surfactant in the pathogenesis of oxygen poisoning has not been determined. The only spontaneous disease in which a severe defect of stability occurs is the respiratory distress of the newborn. Similar defects have been reported in prolonged pulmonary bypass⁹ ligation of the pulmonary artery,¹⁰ atelectasis due to pneumothorax,¹¹ and experimental pulmonary edema.¹² It is interesting to note that the decrease in pulmonary

circulation is present in all of these conditions.

Pulmonary surfactant is a very interesting subject and much more work needs to be done in this field. In a given abnormal state; was the surfactant not produced, or was it inactivated? This creates an important medical problem: If the surfactant is absent then can we introduce it therapeutically? If it is present and not active, what attempts can be made to correct this defect?

Summary

Pulmonary surfactant is a lipoprotein produced by specialized alveolar epithelial cells. This surface-acting substance plays an important role in maintaining alveolus stability. The loss of this stability is demonstrated in respiratory distress syndrome of the newborn; oxygen poisoning, and in conditions in which there has been inhibition to the pulmonary circulation. Much more work is needed to determine the exact role of surfactant so that therapeutic measures may be instituted.

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*From the Inhalation Department, Madison Hospital, Madison, Tenn.

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* * *

CASE REPORT

Is Heredity a Factor in Malignant Melanoma?

Sam B. McFarland, M.D., Lebanon, Tenn.

Having had both a mother and son with malignant melanoma, a search in a small library to ascertain a familial tendency to this disease, revealed only one article¹ Therefore, I thought it might be of interest to report another such case.

There is no history of any other type of malignancy affecting other members of this family.

Case 1. On Nov. 30, 1965, a man entered the office stating that a black mole had been removed from his face a few days before. The doctor who removed the mole told him it was malignant and advised him to have further surgery. Therefore, under local anesthesia, a much wider excision of skin and subcutaneous tissue was done. The pathology report on the second excision was:

Microscopic: There is focal epithelial ulceration associated with a diffuse infiltrate of acute and chronic inflammatory cells, with associated tissue necrosis. Organisms are not present.

Diagnosis. Abscess, etiology not determined. There was no mention of any malignant cells.

The incision healed by first intent and he was advised to return once a month for observation.

The patient returned on July 28, 1966. One of the cervical lymph nodes was palpable. He was admitted to the hospital for removal of the node, which was done under local anesthesia that day. The node was easily removed; it was dark red or black in color. No other nodes were palpable at this time. The pathology report was:

Specimen: Cervical lymph gland, (right).

Microscopic: Sections reveal a lymph node almost completely replaced by poorly differentiated cells, with an abundance of mitotic figures and associated melanin pigment.

Diagnosis: Lymph node with metastatic malignant melanoma.

The patient was advised to immediately have a radical neck dissection, which was done on Aug.

5, 1966. At this time the pathologist did not find any evidence of melanoma in either the skeletal muscles or skin areas of the two previously made scars. Following is the pathology report on the 4th operation.

Microscopic. Sections of the segment of skin reveal dermal fibrosis and scattered focal chronic inflammation. Sections of seven (7) lymph nodes show no evidence of metastatic malignancy.

Diagnosis. Segment of skin with dermal scarring. Lymph nodes (7) with reactive hyperplasia.

He has been observed frequently in my office, and to this date shows no evidence of further metastasis.

Case 2. On Nov. 16, 1966, the mother of the afore mentioned patient, came to my office because of a "black spot" on the right leg which had been present for quite some time, but had been getting darker in the last few months. Fearing it might be the same type cancer her son had just had, she had come to have it removed.

Physical examination was negative, except for the mass, brown in color, at about the middle of the anterior surface of the right leg. No nodes were palpable. The mass was excised under local anesthesia and sent to the pathologist. His report follows:

Microscopic: Sections reveal a large amount of melanin pigment, both within the covering epithelium, and within the superficial dermis, associated with fairly uniform cells arranged in nests and cords with many of the cells containing the pigment in fine granules. There is extensive junctional activity, and the lesion appears to be multicentric. The lesion extends near the lateral margins of excision.

Diagnosis: Malignant melanoma, superficial type.

The region has been re-excised and has healed satisfactorily, with no complications to date.

Summary

Two cases of malignant melanoma are presented. The patients were mother and son.

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She simply sits while the party goes on around her, already used to being the girl who is left out. She tries to lose weight—but her emotions won't let her. She becomes irritable and depressed when she doesn't eat, and anxious when she considers her future. So each time she gives up.

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From the
Executive
Director

E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Ethical Responsibilities— Dispensing Drugs or Devices

● The Judicial Council of the American Medical Association, adopted on March 12, 1967, a policy statement concerning the physician's ethical responsibilities in prescribing drugs and devices.

The Judicial Council determined that it is unethical for a physician to be influenced in the prescribing of drugs or devices by his direct or indirect financial interest in a pharmaceutical firm or other supplier. It is immaterial whether the firm manufactures or repackages the products involved.

It is unethical for a physician to own stock or have a direct or indirect financial interest in a firm that uses its relationship with physicians or stockholders as a means of inducing or influencing them to prescribe the firm's products. Practicing physicians should divest themselves of any financial interest in the firms that use this form of sales promotion. Reputable firms rely upon quality and efficacy to sell their products under competitive circumstances, and not upon appeal to physicians with financial involvements which might influence them in their prescribing.

Prescribing for patients involves more than a designation of drugs or devices which are most likely to prove efficacious in the treatment of a patient. The physician has an ethical responsibility to assure that high quality products will be dispensed to his patient. Obviously, the benefits of the physician's skill are diminished if the patient receives drugs or devices of inferior quality. Inasmuch as the physician should also be mindful of the cost to his patients of drugs or devices, he prescribes, you may properly discuss with patients both quality and cost.

TMA Membership Report

● As of January 1, 1967, the Tennessee Medical Association was made up of 2,908 regular dues paying members, 211 veteran members (over age 70), 48 associate members, for a total of 3,167 TMA members. Fifty-six deaths occurred among the membership in the year 1966. The Association also has 3,032 active members of the American Medical Association and 46 associate members for a total AMA membership of 3,078.

Public Service Project

● Each senior high school in the state, public, private, denominational and governmental - will soon receive a complimentary copy of "Today's Health Guide". This will be a valuable book on health to all high schools in the state. The program is being made possible by the Tennessee Medical Association and the respective county medical societies of the state.

Some Flexibility In Certification

● Physicians and providers of service will have some flexibility in deciding how they will meet Medicare's certification and recertification requirements. HEW will not require that a specific form or procedure be used by physicians, but recertification statements should include: (1)

an adequate written record of the reasons for continued hospitalization; (2) the estimated period of time the patient will need to remain hospitalized; (3) any plans, where appropriate, for post-hospital care. Medicine is now on record with testimony before the House Ways and Means Committee on the amendments to the Medicare and Social Security Law, opposing the necessity for continued certification and recertification other than the usual hospital records containing adequate progress notes.

American Medical Association Representatives Testify at Medicare Hearings

● The President and President-Elect of the American Medical Association recently testified before the House Ways and Means Committee on H.R. 5710, the Social Security Amendments of 1967. AMA representatives testified that: (1) Medicare is unwise legislation and is not in the public interest; (2) The wisest move that could be taken is to make use of available funds to give maximum care to those who need help; (3) Inclusion of the disabled under Medicare was opposed since Title XIX already provides for them and because the expansion of the Medicare program is unwarranted; (4) Payments under Medicare to federal facilities for care rendered to medical patients was not supported since many special purpose installations (VA and PHS hospitals) primary function would be altered; (5) Inclusion of podiatry services as a Part B service was opposed on the basis that it would expand the program and permit podiatrists to perform services now done by physicians, while excluding routine foot care; (6) Creation of a new Part C in Title XVIII which would cover payment for services rendered to hospital outpatients and for diagnostic specialty services to both inpatients and outpatients, was opposed since it would separate the services of pathologists and radiologists from the services of all other physicians. The AMA suggested instead that all diagnostic specialty services to inpatients and all outpatient services should be placed under Part B; (7) Removal of initial certification for inpatient care by the physician was strongly supported with the request that the recertification requirement also be deleted; (8) Authorization for the state agency to provide consultative services to laboratories was supported; (9) Removal of the limitation on reduction of 90 days on inpatient psychiatric and tubercular hospitals prior to becoming eligible for Medicare benefits was opposed; (10) Creation of an Advisory Council for Title XIX was strongly supported on the condition that a majority of the Council members represent providers of health care rather than, as provided in H.R. 5710, consumers of health services; (11) Guarantee of free choice of physician and facility under Title XIX was strongly supported by the AMA. There were numerous other recommendations made but the above covers the most important points.

Ups and Downs

● A recent newsletter of the First National City Bank of New York contained two lists of items in the Consumer Price Index as reported by the U. S. Bureau of Labor Statistics. Here are a few of the things that have gone up. In relation to the 1957-59 price index, they are: hospital rooms, 59% --- auto insurance, 38% --- postal charges, 37% --- domestic services, 36% --- newspapers, 35% --- physician fees, 28%.

Proof Positive

● Americans over age 65 are taking advantage of Medicare by more frequent utilization of medical services. The national disease and therapeutic index, reports that of 109.2 million visits by private patients last October, 23.5 million were by patients over age 65. This is 22% of all care rendered privately outside a hospital for the month.

Public Service

THE TENNESSEE TEN

Hadley Williams, Assistant Executive Director

Hearings Completed on Medicare Amendments • The House Ways and Means Committee has completed public hearings on H.R. 5710, "The Social Security Amendments of 1967" and the committee is now in executive session.

Dr. Charles L. Hudson, president of the AMA, testified before the committee April 4th and outlined medicine's position on amendments to both Title XVIII and Title XIX. Dr. Hudson told the committee that the AMA still believes medicare "is unwise legislation and is not in the public interest". He cited two major defects: (1) it covers millions of people who are self-supporting; and (2) it centralizes the direction of the program in Washington rather than permitting the flexibility and trial-and-error of health care programs administered by the states.

Several specific amendments were proposed by the AMA to improve Title XVIII. A provision included in H.R. 5710, which would delete the requirement for physician certification for inpatient hospital care for each medicare patient is strongly endorsed. AMA further suggests the similar deletion of the requirement for recertification, saying this need will be satisfied by utilization review committees.

Also recommended is that Title XVIII be amended to permit payment of charges for professional services on the basis of a physician's itemized statement of charges rather than a receipted bill. Also, that Title XVIII be amended to remove the requirement for three days of hospitalization before qualifying for extended care benefits. AMA is recommending that the 190-day lifetime limit for treatment of the mentally ill in a psychiatric hospital be eliminated and that provision for treatment of the psychiatrically ill under Medicare be on a basis equal to that provided for other Medicare patients.

Opposed by the AMA is a proposal to expand Title XVIII to include the disabled of any age. The provisions of Title XIX will completely care for those disabled who have difficulty in meeting their health care costs and these provisions should be utilized rather than expanding the basic Medicare program.

Several proposed amendments to Title XIX were supported by AMA. These included a provision to limit eligibility by basing a person's need in relation to his income; a provision calling for a Title XIX advisory committee similar to that under Title XVIII; and a provision to guarantee free choice of physician and facility under Title XIX.

The AMA proposed that Title XIX permit payment to the patient for services rendered to him by a physician on the basis of the physician's itemized statement of charges.

Five additional amendments to Title XIX were suggested by AMA. First, that the program clearly provide for the payment of physician fees on the basis of usual and customary charges using the same approach as that applied under Title XVIII.

Second, that Title XIX encourage the use of insurance carriers in the implementation of state programs.

Third, that no requirement for certification or recertification be required in Title XIX Programs.

Fourth, that Title XIX permit all state plans to vary the

eligibility standards within a state to recognize the very real differences in the cost of living in a rural area, a small town, a city or a metropolitan area.

The fifth recommendation relates to the fact that Title XIX benefits differ for mentally ill patients depending on whether they are above or below age 65. The AMA feels there should be no distinction in their services.

Advise Your Congressman Now

● TMA members are being asked to write their Congressmen NOW to let Medicine's views on H.R. 5710 be known. If any expansion of Medicare is accomplished after being in existence less than one year, the stage will be set for further extensions with each succeeding Congress.

Take time to express your views to your Representative and encourage other physicians and their wives and allied members of the health team to do the same. Tomorrow is not soon enough!

AMA-ERF Money Distributed

● Tennessee's three medical schools received \$39,142 from contributions made in 1966 to the American Medical Association's Education and Research Foundation. The money was part of more than \$1 million distributed by AMA-ERF to the nation's medical schools this year.

Dr. Thomas J. Ellis, of Johnson City, chairman of the TMA Committee for AMA-ERF, presented checks in the amount of \$17,118.28 to the Vanderbilt School of Medicine, \$15,754.56 to the University of Tennessee College of Medicine, and \$6,269.38 to Meharry Medical College during the opening session of the TMA House of Delegates at the annual meeting in Memphis.

Total contributions to AMA-ERF nationally was over \$3.8 million and of that amount \$652,850 was contributed by physicians.

Only California and Texas exceeded Tennessee in the number of loans granted to medical students, interns and residents. A total of 476 loans totaling \$570,000 were made in Tennessee last year.

The Woman's Auxiliary to TMA continues to work hard for AMA-ERF, earning national recognition for their efforts. During 1966 a record amount of \$21,881 was contributed through the TMA Woman's Auxiliary.

Health Project Winners Announced

● The senior class of Cleveland Day School, Cleveland, Tennessee, was named winner of the 14th Health Project Contest sponsored annually by the TMA and the Women's Auxiliary.

Topic of the winning entry was "Alcohol and Society: Four Phases for Study."

Mr. David B. Glenn, class sponsor, and two student representatives, Miss Judy Lowe and Miss Cyndy McGee, were given expense paid trips to the annual meeting in Memphis to receive their first place award of \$500.

Second place prize money of \$300 was won by the Ninth Grade Science Class of Snowden Junior High School in Memphis for their unusual entry entitled "Effects of Music on Plants and Humans".

Two Chattanooga schools won the third and fourth place awards of \$200 and \$150 respectively. The Elbert S. Long Junior High School's entry of "Water Pollution in South Chickamauga Creek" was judged third, and Brainerd High School's Science Club won fourth place with their entry "Water Pollution in the Chattanooga-Brainerd Creek Area".

The Eleventh Grade Health Classes of Fall Branch High School won fifth place and an award of \$100 for their entry entitled "Rolling the Ball Toward Physical Fitness".

Entries from across the state were received for judging by the state chairman, Mrs. John Griffith, of Nashville. An appropriately encribed certificate will be presented to every school or class submitting a project in the contest.



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Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

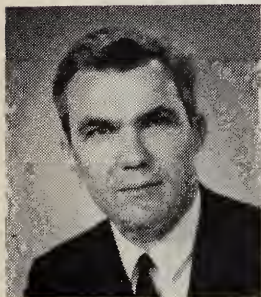
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President's Page

The Road Ahead



DR. KRESSENBERG

As I begin this year as your President, the road ahead seems very long, and I am sure at the end of it the passage of time will seem all too rapid. Perhaps the bumps in the road will seem smoother since we will pass over them swiftly.

Those of you who will pass over this road with me, both as members of the Tennessee Medical Association, and as individual physicians, should realize that we must present a united front as members of the Association even though we maintain our independence as individual practitioners.

After almost a year of Medicare many of our patients are joining with us in criticism of the federal program; a vast jungle of tangled red tape, confusion as to benefits, and delays in reimbursement. Our hospitals and offices are over-crowded, despite the fact that the program is less than a year old. Many amendments to the Title XVIII Program and some to the Title XIX Program are being considered by the House Ways and Means Committee at the present time and it seems likely that a number of these will be enacted. Two of these amendments which are of particular interest to us, and which are being supported by the AMA, are those to enable the patient to be paid on the basis of an itemized statement, rather than a receipted bill; and a discontinuation of the need for official certification and recertification of medical need for hospitalization.

The Title XIX Program has not as yet been implemented in Tennessee although it seems certain that it will be within the next year. The Officers and Board of Trustees of the Tennessee Medical Association have been exerting all their efforts to help our State Government design a program that will be of greatest benefit to both the general public and the physicians of the State of Tennessee. It is imperative that we profit from mistakes of the Federal Government and some of the other states in their medical programs, in developing a program that is realistic and functional. Above all, we must strive to achieve help for those who *NEED* it, and for no others; and to maintain our position that only a physician can determine who *NEEDS* medical care and what *KIND* of medical care is needed.

Let me urge each member of the Association to communicate your thoughts, wishes, hopes, and criticisms to me, the Board of Trustees or any of the other Officers. Only if you do so can we effectively represent you in our official actions. To this end we pledge you our utmost efforts.

Sincerely,

K. M. Kressenberg, M.D.

President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

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Tennessee

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-4211, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn.

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MAY, 1967

EDITORIAL

VIRAL HEPATITIS

It is well recognized that our present safeguards against human experimentation may deter many investigators from carrying out important controlled epidemiological studies. Thus, it is exciting to read a report on viral hepatitis by Krugman, et. al,¹ which appeared in a recent issue of the Journal of the American Medical Association. This study was reviewed and sanctioned by the University Committee on Human Experimentation, by the New York State Department of Mental Health and by the Armed Forces Epidemiological Board. It was conducted in accordance with the World Medical Association's Draft Code of Ethics on Human Experimentation.

Viral hepatitis continues to be one of our

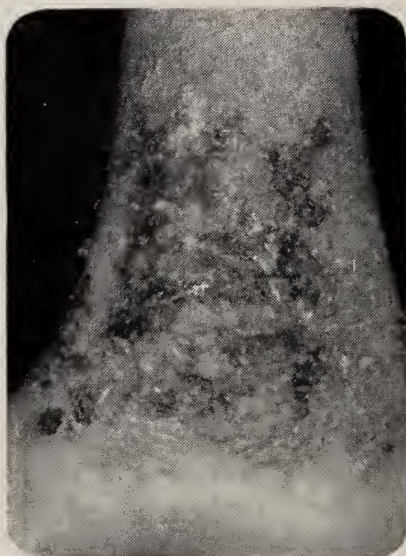
¹Krugman, S., Giles J. P., and Hammond, J.: Infectious Hepatitis: Evidence for Two Distinctive Clinical, Epidemiological and Immunological Types of Infection, J.A.M.A. 200:365 (May 1) 1967.

most important and intriguing problems in the field of infectious diseases. Since animal experimentation in viral hepatitis has been unrewarding, and since man is the only susceptible host, everything we know about these diseases including the properties of the viruses, the nature of the diseases and the effectiveness of gamma globulin has been learned from man.

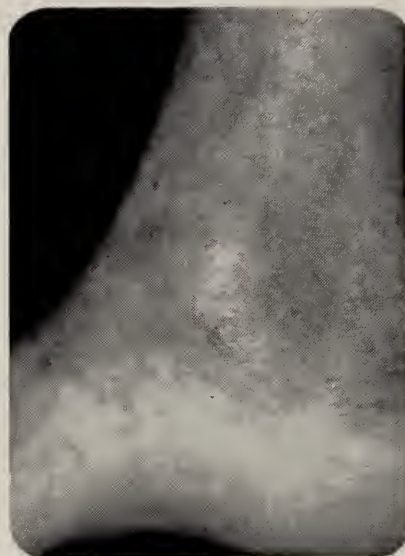
The two forms of viral hepatitis are infectious hepatitis (IH hepatitis, virus A hepatitis, and in former years, acute catarrhal jaundice and epidemic jaundice) and serum hepatitis (homologous serum jaundice, SH hepatitis, virus B hepatitis, post-transfusion hepatitis and post-vaccinal). These two disorders have been differentiated by their incubation periods and their modes of transmission. The incubation period for infectious hepatitis has been reported to range from 15 to 50 days with a mean approximately 30 to 35 days while the incubation period for serum hepatitis is much longer, generally ranging from 43 to 180 days with most cases occurring between 60 and 90 days. It has also been assumed that the mode of transmission of infectious hepatitis was by the gastrointestinal tract and that serum hepatitis was transmitted parenterally by artificial means, either by needles or transfusion. In the absence of these latter means of transmission it was assumed that the serum hepatitis virus was maintained by "vertical" transmission from mother to child in utero.

Krugman and his associates recovered viruses from two separate attacks of hepatitis and found them to be antigenically distinct and also varying in their incubation periods. Their strain MS-1 had an incubation period of 31 to 42 days with a mean of 37 days and resembled infectious hepatitis virus. Strain MS-2 had an incubation period of 55 to 90 days with a mean of 71 days and resembled the serum hepatitis virus. The incubation period of MS-1 was essentially the same whether the virus was administered orally or parenterally. The incubation of MS-2 was longer by the oral route. However, it was significant that infection with MS-2 or serum hepatitis virus could be achieved by the oral route making it unnecessary to postulate "vertical" transmission from mother to fetus as a

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Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side

effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive non-permeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyoderma will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

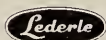
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source of virus in the absence of parenteral transmission.

Of additional significance were the biochemical changes which differentiated these two viruses. Infection with the virus of infectious hepatitis produced a marked elevation in the thymol turbidity test and a spiking rise in SGOT activity which was of short duration. In contrast, the virus of serum hepatitis produced relatively normal levels in the thymol turbidity tests and a gradual rise and a prolongation of SGOT activity. There were no clinical differences between these two diseases—both enteric and non-enteric forms were noted. The persistence of abnormal enzyme activity could not be correlated with the presence of clinical symptoms.

These important contributions to our knowledge about viral hepatitis by Krugman and his associates were made possible by the judicious use of humans in carefully controlled experimental studies. It is gratifying to know that such experiments can be conducted in spite of the restrictions on human experimentation imposed by various interested agencies.

IN MEMORIAM

Taylor, Finis A., Memphis. Died 2, April, 1967, Aged 56. Graduate of University of Tennessee College of Medicine, 1937. Member of the Memphis-Shelby County Medical Society.

McMahan, Robert B., Newport. Died 6, April, 1967, Aged 34. Graduate of University of Tennessee College of Medicine, 1960. Member of Cocke County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

West Tennessee Consolidated Medical Assembly

The West Tennessee Consolidated Medical Assembly held a joint meeting with the West Tennessee Bar Association on March 7th at the New Southern Hotel in Jackson. The program topic was "Medicine and the Law". Speakers included Dr. Bland Cannon, Memphis; Dr. G. Baker Hubbard, Jack-

son; and Mr. John Thomason, Attorney, Memphis. Dr. Cannon spoke on "Medical Aspects of Neurosurgical Trauma" and Dr. Hubbard discussed "The Medical Legal Relationships". Mr. Thomason's subject was "The Doctor as a Witness and a Defendant."

Roane-Anderson County Medical Society

Dr. Harold Collins, associate professor of surgery in charge of heart surgery at Vanderbilt University School of Medicine, was guest speaker at the dinner meeting of the Roane-Anderson County Medical Society on March 28th in Oak Ridge. Dr. Collins' subject was "Recent Advances in Cardiac Surgery."

Memphis-Shelby County Medical Society

The Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on April 4th. The scientific program, sponsored by the Local Unit of the American Cancer Society, was entitled "Bone Tumors." Guest speaker was Dr. William F. Enneking, professor of surgery and pathology, chief of orthopedics, University of Florida. A session of the House of Delegates followed the scientific program.

Nashville Academy of Medicine Davidson County Medical Society

Dr. Louis G. Welt, professor and chairman of the department of medicine, University of North Carolina School of Medicine, discussed "Fluid Balance and Electrolytes" at the meeting of the Academy on May 9th. The meeting, held in the auditorium of the Veterans Administration Hospital, was preceded with a dinner and business session of the Academy members.

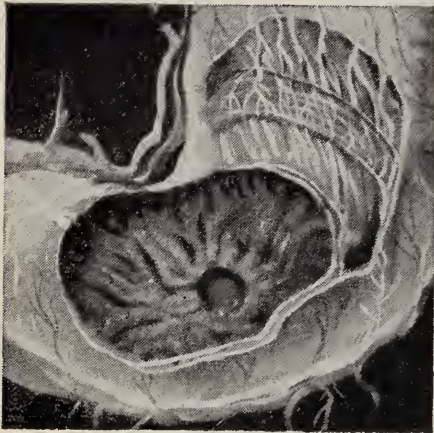
NATIONAL NEWS

This Month In Washington

(From the Washington Office, AMA)

The American Medical Association favors utilizing medicaid instead of expanding medicare. Dr. Charles Hudson, AMA president, outlined the Association's position at a

In peptic ulcer... antacid therapy with a new benefit



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- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

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House Ways & Means Committee hearing on the Administration's bill "Social Security Amendments of 1967" (H.R. 5710). He was accompanied by Dr. Milford O. Rouse, AMA president-elect.

Dr. Hudson said: "Available tax funds should be used to give maximum health care to those who need help. Expenditure of public funds on those who do not need help limits the resources available to those who do need it. . . . We believe that a properly administered Title XIX (medicaid) with realistic criteria of eligibility designed for economically disadvantaged persons, plus the encouragement and improvement of voluntary health insurance and prepayment plans for the solvent, provide the best approach to health care financing."

Dr. Hudson said AMA representatives would be glad to meet with the committee and other interested parties to hammer out a workable approach to solving the many complex problems in the medicare program, particularly as concerns its Plan B. "Unfortunately, Part B did not receive an amount of public or congressional debate warranted by the nature and scope of the proposal. This Committee is now confronted with many problems inherent in the vast undertaking of the federal government in becoming directly involved in the total health care of almost 20 million persons. We believe it is possible for the Congress, the medical profession and others interested in the subject to develop a new mechanism for delivering medical care to people over 65 that would be more consistent with existing private sector mechanism. . . ." He said that carriers, physicians, patients, and the government all are dissatisfied for various reasons with Part B and that one possible solution might be to substitute for the Part B program a subsidy to all eligible persons for the purchase of private insurance.

Highlights of AMA's testimony included:
Section 125, to include the disabled.

The adoption of Section 125 . . . could change the direction of medicare from a program for older persons to one aimed at various select categories. . . . We believe Title XIX should be utilized for that purpose. We urge the Committee to reject this provision.

Section 127, including podiatry.

While recognizing the usefulness of podiatry services, we are impelled to note that if the amendment is adopted, the podiatrist could assume responsibility for the care of some of the more difficult problems in medicine. We believe this to be unsound.

Section 130, creation of Part C. of Title XVIII.

This section would provide a new Part C to cover payment for hospital services rendered to hospital outpatient; and for diagnostic specialty services to both outpatients and inpatients of hospitals. The AMA opposes Part C. *in toto*.

Section 131, physician certification.

The AMA endorses Section 131 which would remove the requirement of a physician's certification for inpatient hospital care for each Medicare patient admitted to a general hospital. We urge the Committee to consider this amendment favorably and remove an unnecessary impediment to the operation of Part A. We further urge that the requirement for re-certification be similarly deleted, since this need should be satisfied as a result of the work of utilization review committees. Until re-certification is deleted, we suggest that the first certification date be the 20th day of hospitalization, as permitted in the existing law.

Section 220, income maximum under Title XIX.

The AMA supports the concept of limiting eligibility for Title XIX benefits to persons who genuinely need financial assistance in meeting their health care needs.

Section 226, free choice under Title XIX.

Although free choice is guaranteed for Title XVIII recipients, a similar privilege was not extended to Title XIX beneficiaries. We believe this was an oversight, and we heartily support this perfecting amendment to Title XIX.

Additional amendments proposed by the AMA.

First, the AMA recommends that Title XVIII be amended to permit payment of charges for professional services on the basis of a physician's itemized statement of charges rather than a receipted bill.

Second, we recommend that Title XVIII be amended to remove the requirement for



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A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

IN BRIEF:

INDICATIONS: In depression of any kind—neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects oc-

cur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.



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three days of hospitalization before qualifying for extended care benefits.

In addition, we offer a recommendation relating to psychiatric care under Title XVIII.

Regarding Title XIX, we offer six amendments. First, that the program permit payment to the patient for services rendered to him by a physician on the basis of the physician's itemized statement of charges. Second, that the program clearly provide for the payment of physician fees on the basis of his usual and customary charges, using the same approach as that applied under Title XVIII. Third, that Title XIX encourage the use of insurance carriers in the implementation of state programs. Fourth, that in the implementation of Title XIX programs, there be no requirement for certification or recertification. Fifth, that Title XIX permit all state plans to vary the eligibility standards within a state to recognize the very real differences in the cost of living in a rural area, a small town, a city or a metropolitan area.

Our sixth recommendation relates to the fact that Title XIX benefits differ for mentally ill patients depending on whether they are above or below age 65. We believe there should be no distinction in the services available to mentally ill patients.

Physician coverage under Social Security.

We believe that physicians, having been brought under Social Security coverage, should be accorded the same privilege and opportunity for reaching a fully insured status as was accorded other professional groups when they were included in the program.

Accordingly, we urge this Committee to consider the adoption for physicians of an "alternative insured status" similar to that permitted by the amendments of 1954 and 1956 which brought into the program many new groups of people and professional self-employed persons, including lawyers.

MEDICAL NEWS IN TENNESSEE

University of Tennessee
College of Medicine

Degrees were awarded to 45 graduates of

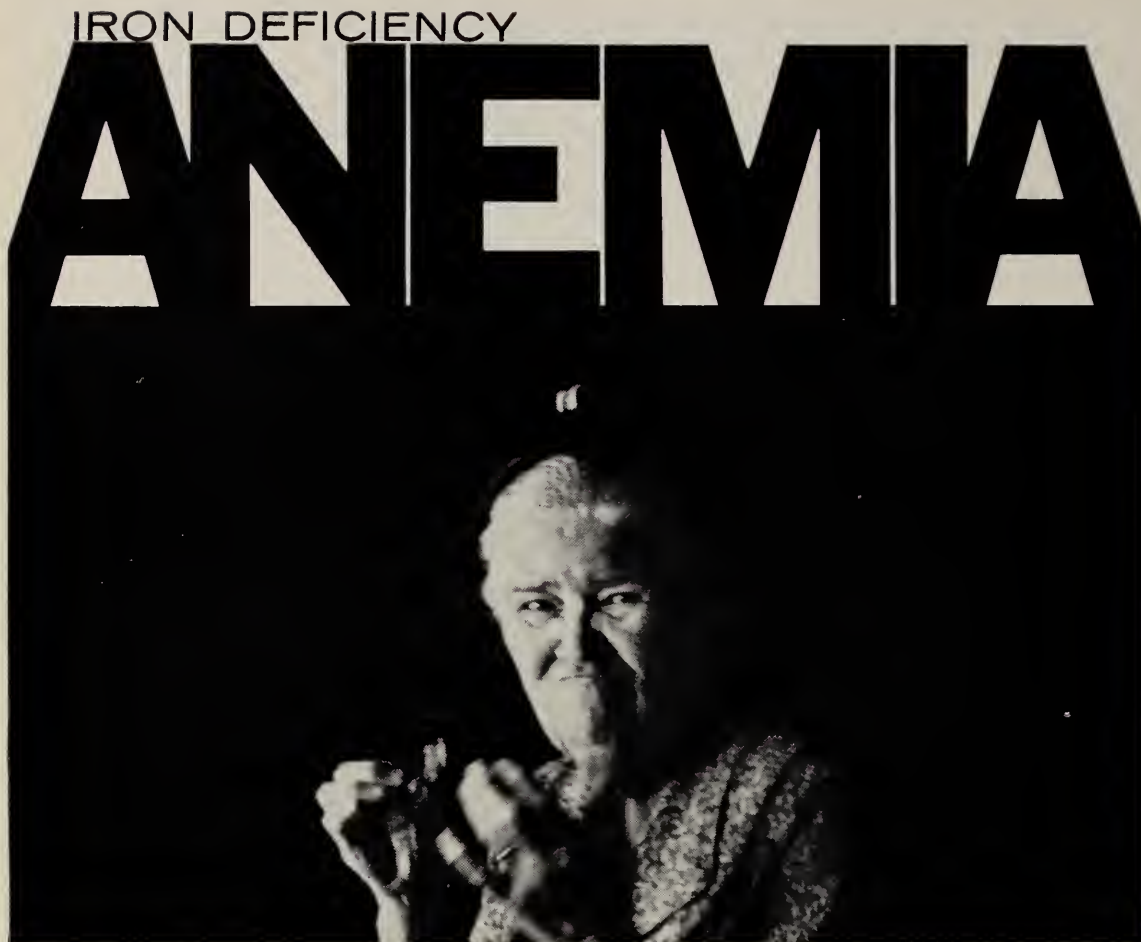
the University of Tennessee Medical Units at the Winter commencement exercises on March 19th. Dr. Clarence P. Berg, professor of biochemistry and biophysics at the University of Iowa, was commencement speaker and the degrees were conferred by Dr. Andrew Holt, President of the University. The largest group were graduates of the College of Dentistry, with 31 candidates. Also receiving degrees were graduates of the School of Basic Medical Sciences and the Graduate School-Medical Sciences. Certificates were awarded in Dental Hygiene and Physical Therapy.



"Government and the Health Sciences" was the theme for a medical lecture series at the Medical Units, April 21-22. Speakers included Dr. Charles L. Hudson, president of the American Medical Association, associate clinical professor of medicine at Western Reserve University, and Dr. Ray E. Brown, head of the hospital administrative program of Duke University. Dr. Brown has been a member of several White House sponsored medical studies and is a former president of the American Hospital Association. Other speakers were Bernard J. Conway, legal adviser to the American Dental Association; Dr. Andrew Holt, president of U.T.; Dr. Durward G. Hall, Republican representative from Missouri; Dr. Homer F. Marsh, chancellor of the medical units and vice president of U.T.; and Frank C. Holloman, executive director of the Mid-South Medical Center Council.



Dr. Lester Van Middlesworth has been named recipient of the Alumni Outstanding Teacher Award for the 1966-67 academic year. The designation carried with it a \$500 award presented by the University of Tennessee Alumni Association. A selection committee chose Dr. Van Middlesworth on the basis of his "record as an outstanding teacher" during the 21 years he has been at the Medical Units. Dr. Van Middlesworth, professor of physiology and biophysics and also associate professor of medicine, came to the Units in 1946. In addition to his teaching, he has been recognized internationally for his research, particularly in thyroid



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IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

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physiology and biological importance of radioiodine fallout resulting from atomic explosions. Since the early 1950's he has been monitoring iodine fallout, a study financed by the U. S. Atomic Energy Commission. Since 1962 he has been supported by a Career Research Award from the U. S. Public Health Service. In April of this year, he will lecture in England at the invitation of the British Atomic Energy Agency and the Imperial Cancer Research Fund of London.



Dr. Lewis D. Anderson, associate professor of orthopaedic surgery, has been awarded a traveling fellowship for 1967. The award is sponsored jointly by the American Orthopaedic Association and the British Orthopaedic Association. Dr. Anderson departed April 1 for a six-week, expense-paid tour of the major orthopaedic centers in England and Scotland. Upon completion of the tour, he will report on his trip at the annual meeting of the American Orthopaedic Association to be held in Hot Springs, Va., June 25.

Memphis Eye, Ear, Nose and Throat Convention

Six specialists were guest speakers at the convention of the Memphis Eye, Ear, Nose and Throat Society, March 11-13. Lectures on eye diseases covered such topics as glaucoma, artificial corneas and control of infections. Speakers on Ophthalmology were: Dr. Arthur Gerald DeVoe of New York, Dr. David O. Harrington of San Francisco, and Dr. Irwing Henry Leopold of New York.

Lectures on ear, nose and throat ailments dealt with implants in facial surgery, treatment of ear and face injuries, and surgical techniques for various problems. Otolaryngologists presenting lectures included: Dr. John T. Dickinson of Pittsburgh, Pa., Dr. G. S. Fitz-Hugh of Charlottesville, Va., and Dr. Walter H. Maloney of Cleveland, Ohio. Dr. William F. Murrah was program chairman for the convention.

Meharry Medical College

Dr. William H. Sweet, Chief, Neurosurgical Service at Harvard Medical School,

Massachusetts General Hospital, presented the annual Hale-McMillan Lecture held April 6th in the Public Health Lecture Hall of Meharry Medical College. Dr. Sweet, one of America's most outstanding physicians in the field of neurosurgery, discussed "The Neurosurgical Control of Pain via Electrodes."

Erlanger Hospital

The director of medical education for the Baroness Erlanger Hospital, Chattanooga, has announced that the hospital is scheduled to institute its first residency program in plastic surgery in July. Erlanger was approved for the program by the Review Committee for Plastic Surgery, a subcommittee of the American Medical Association. Plastic surgery residency programs are limited in the Southeast. Memphis has the only program in Tennessee and there are only eight other approved programs in the eight southeastern medical centers.

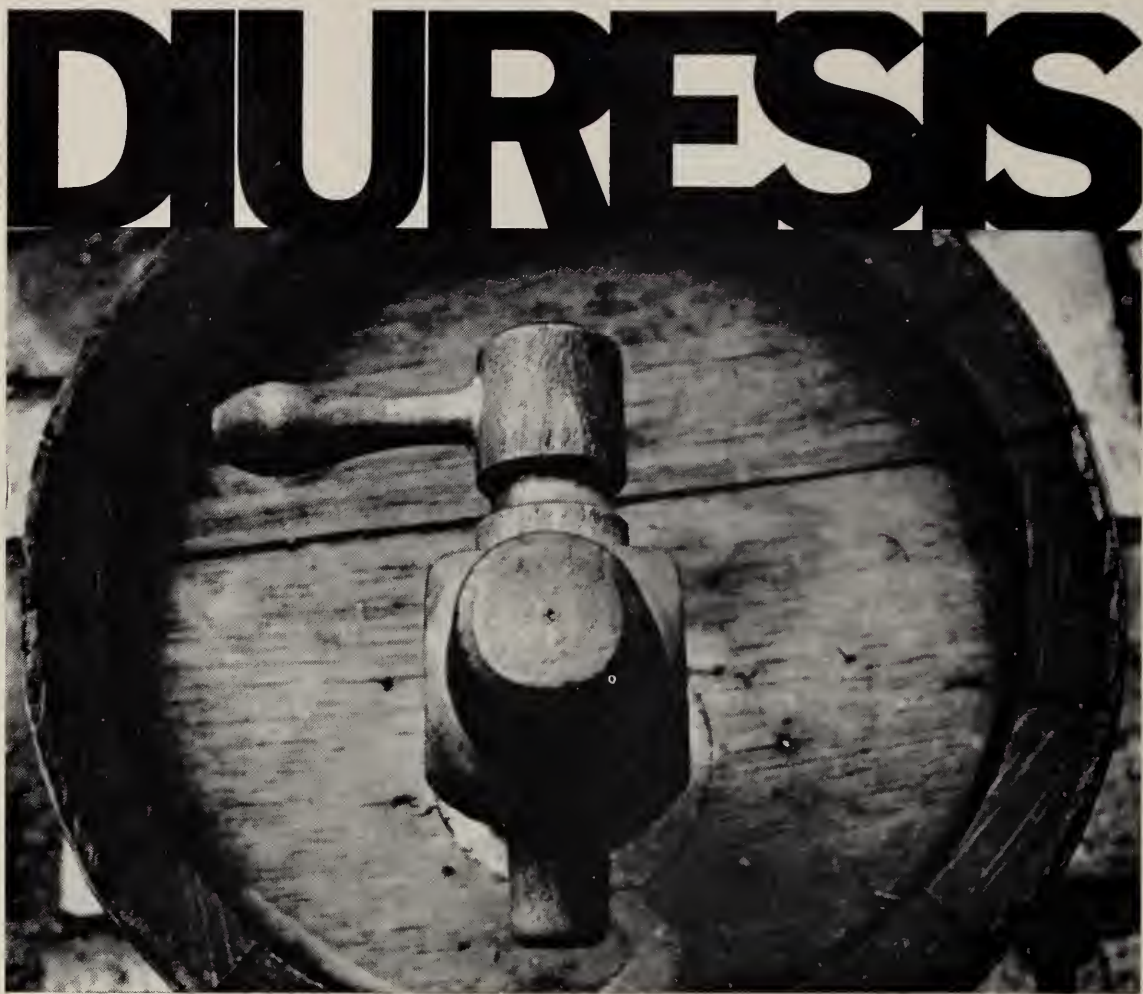
One resident will be selected to begin the program in July. A second will be added in July, 1968 and the program will ultimately increase to include four residents. Financial support for the program will come from the hospital, as in the case of other residency programs already in effect.

Addition to Campbell Clinic

The new three-story Campbell General Hospital, connected to and doubling the capacity of Campbell Clinic, Chattanooga, officially opened in April. The 47-bed adjunct to the parent hospital was designed to meet modern day needs for patient care, and includes the latest equipment used in surgery and medical treatment. Campbell Clinic was established in 1939 by Dr. Earl Campbell, Sr.

Vanderbilt University School of Medicine

Dr. Richard D. Rowe, international authority on heart disease in infants and children, spoke on March 2nd in the amphitheater of Vanderbilt Hospital. Dr. Rowe, professor of pediatrics at the Johns Hopkins University School of Medicine, visited the Vanderbilt pediatrics department, on a



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Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"¹ established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in $\frac{1}{3}$ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell² has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice* 1966-1967, p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

three-day tour sponsored by the Middle Tennessee Heart Association and the Tennessee Department of Public Health.



Dr. A. McGehee Harvey, professor of medicine and physician in chief at Johns Hopkins University Medical School spent a week in March at Vanderbilt University as the Hugh Jackson Morgan visiting professor of medicine. Dr. Harvey delivered three lectures, the principal one concerning the production of antibodies to normal tissue which is a factor in a number of diseases. The Hugh Jackson Morgan visiting professorship is named for the late chairman of the department of medicine, who held the post 28 years until his death in 1959.

St. Jude Children's Hospital

Dr. Martin Morrison of the City of Hope Medical Research Institute in Duarte, California, will join St. Jude Children's Research Hospital this fall as chairman of the department of biochemistry. Dr. Morrison has headed the section of respiratory enzymology at the California institute for the past five years.

PERSONAL NEWS

Dr. John B. Youmans, Nashville, president emeritus of United Health Foundations, Inc., and a medical educator with a life-time interest in human nutrition, has been named recipient of the 1967 Conrad A. Elvehjem Award of the American Institute of Nutrition. The award, comprising a commemorative plaque and \$1,000, is bestowed annually in recognition of distinguished service to the public through the science of nutrition and is sponsored by the Wisconsin Alumni Research Foundation.

Dr. Arnold M. Meirowsky, Nashville, neurological surgeon, participated as invited speaker in the First Annual Trauma Series, the Management of Combat Wounds to the Nervous System, which was held at the U.S. Naval Hospital, Portsmouth, Virginia. At this one-day meeting on March 10th, Dr. Meirowsky spoke on the management of penetrating craniocerebral trauma.

Drs. W. Houston Price and **Bennett W. Caughran**, Chattanooga, announce the association of **Dr. J. William Henry** in the practice of orthopaedic surgery.

Dr. Merlin L. Trumbull, director of laboratories at Baptist Hospital, Memphis, was guest speaker at a meeting of the Union City Rotary Club on March 10th.

Dr. Hu A. Blake, former chief of thoracic and cardiovascular surgery at Brooke General Hospital, San Antonio, Texas, has been named chief of surgery and director of the surgical training program at University Hospital in Knoxville.

Dr. Robert M. Miles, U.T. professor of surgery and chief of surgery at Baptist Memorial Hospital, recently presented a paper on the vena caval clip at a sectional meeting of the American College of Surgeons held in Colorado Springs. Dr. Miles also participated in a panel discussion on "Thromboembolism".

Dr. C. Richard Hughes has joined the partnership of **Drs. Hays Mitchell** and **John Appling**, pediatricians, in Cleveland.

Dr. Thayer Wilson, Carthage, has been chosen "Outstanding Middle Tennessee Physician". Dr. Wilson received an engraved plaque from the Middle Tennessee Medical Association commemorating this honor.

Dr. J. C. Gaw was guest speaker in March at a meeting of the Parent Teachers Association in McMinnville. Dr. Gaw's subject was "Prevention in Disease and Trauma."

Dr. John R. Reynolds has joined **Dr. James Davis** and **Dr. Don Russell** in the practice of plastic and reconstructive surgery in Chattanooga.

Dr. Hugh M. A. Smith, Jr., National Consultant in Orthopaedic Surgery to the U.S. Air Force Surgeon General, visited Air Force medical facilities in the Philippines, Japan, and Okinawa in April to review and evaluate professional standards of assigned personnel, material, and equipment, and conduct teaching sessions. Dr. Smith, one of 74 civilian national consultants who provide the Surgeon General with advice and assistance on the professional aspects of the medical, dental, veterinary, and paramedical specialties, is associate professor of orthopaedic surgery at the University of Tennessee, Memphis, and is a member of the staff of the Willis C. Campbell Clinic.

Dr. Charles E. Allen, Johnson City, was guest speaker at a meeting of the local Kiwanis Club on March 29th.

Dr. Albert M. Jones, chairman of the poison control center of Lebonheur Children's Hospital, Memphis, spoke on "Accidental Poisoning in the Home" at a joint meeting of the Memphis branch of the American Pharmaceutical Association and the Memphis and Shelby County Pharmaceutical Society on March 14th.

ANNOUNCEMENTS

Calendar of Meetings, 1967

State

June 13-14	Upper Cumberland Medical Society, Cloyd Hotel, Red Boiling Springs
Oct. 2-3	Tennessee Valley Medical Assembly, Chattanooga

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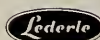
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	National
May 29-June 2	American Urological Association, New York Hilton Hotel, New York
June 12-14	American Neurological Association, Claridge Hotel, Atlantic City, N.J.
June 15-19	American College of Chest Physicians, Atlantic City, N.J.
June 17-18	American Diabetes Association, Hotel Dennis, Atlantic City, N.J.
June 18-22	American College of Preventive Medicine, Atlantic City, N.J.
June 18-22	American Medical Association, Atlantic City, N.J.
June 18-24	American Urological Association, Princess Kaiulani Hotel, Honolulu
June 26-29	American Orthopaedic Association, Homestead, Hot Springs, Va.
August 21-24	American Hospital Association, Chicago
Sept. 7-9	American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.
Sept. 14-16	American Thyroid Association, Michigan Union, Ann Arbor, Mich.
Sept. 15-23	American Academy of General Practice, Dallas, Texas
Sept. 22-30	American Society of Clinical Pathologists, Palmer House, Chicago
Sept. 29-Oct. 3	American Society of Anesthesiologists, Las Vegas, Nev.
Oct. 1-4	Neurosurgical Society of America, The Biltmore, New York
Oct. 2-6	American College of Surgeons (Annual) Conrad Hilton, Chicago
Oct. 5-7	Association of American Physicians and Surgeons, Sheraton-Lincoln, Houston
Oct. 21-26	American Academy of Pediatrics, Washington Hilton Hotel, Washington, D. C.
Oct. 22-23	American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Fla.
Oct. 25-28	Congress of Neurological Surgeons, San Francisco Hilton Hotel, San Francisco

Oct. 27-30	Association of American Medical Colleges, New York Hilton, New York
Oct. 29	American Association of Ophthalmology, Palmer House, Chicago
Oct. 29-Nov. 1	American College of Gastroenterology, Biltmore Hotel, Los Angeles
Oct. 29-Nov. 3	American Academy of Ophthalmology and Otolaryngology, Palmer House, Chicago

Annual Otolaryngologic Assembly

The annual Otolaryngologic Assembly of 1967 will be held October 14 through 20 in the new Illinois Eye and Ear Infirmary at the Medical Center, Chicago. The Department of Otolaryngology of the College of Medicine of the University of Illinois offers a condensed postgraduate basic and clinical program for practicing otolaryngologists under the direction of Dr. Emanuel M. Skolnik. It is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

A separate, but correlated course entitled "Head and Neck Radiology Conference" will be conducted by the Department of Radiology for two full days just preceding the Assembly, October 12-13.

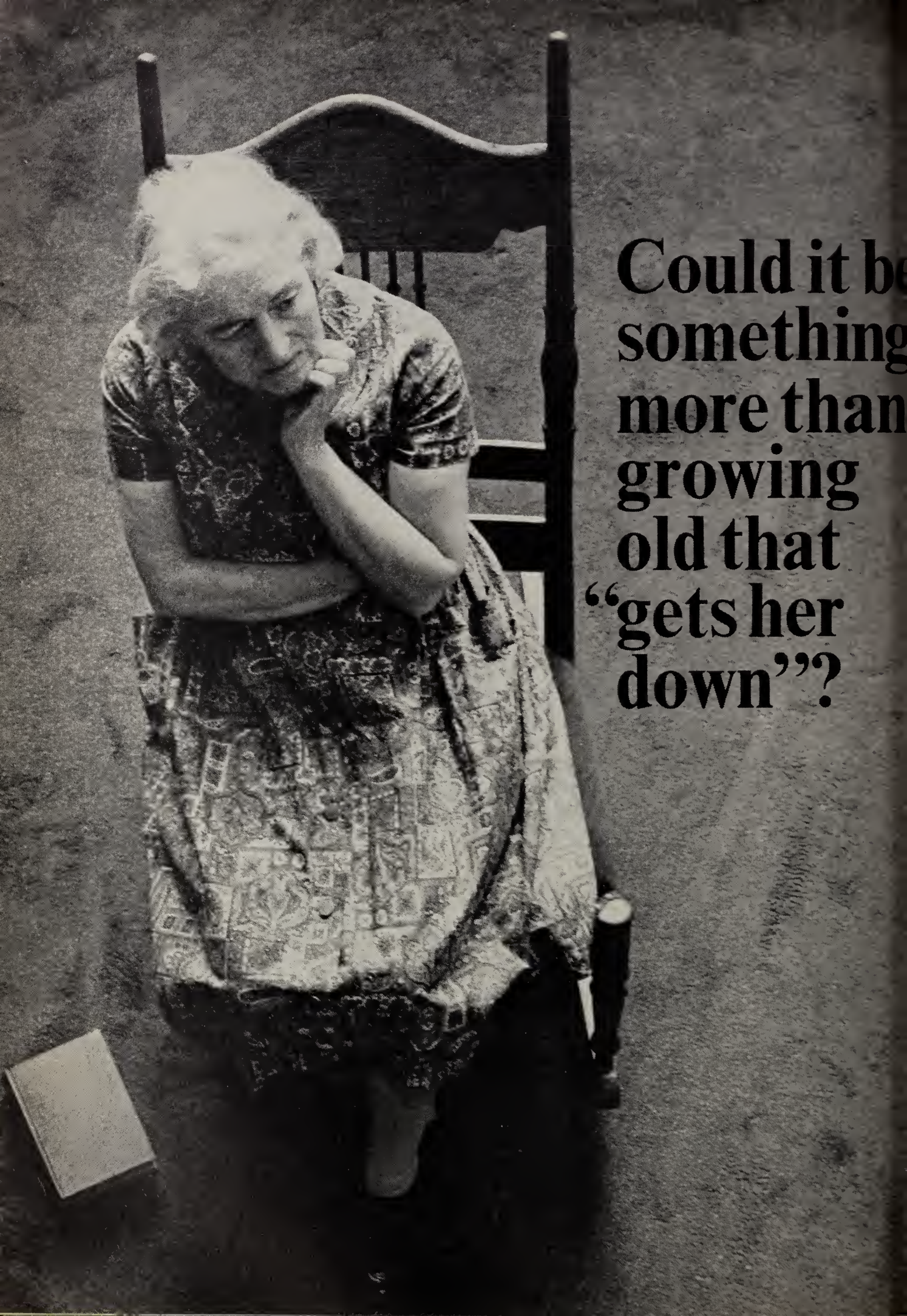
Interested physicians should direct communications to: Department of Otolaryngology, P. O. Box 6998, Chicago, Illinois, 60680.

Intensive Coronary Care Nursing Course

The second course in Intensive Coronary Care Nursing has been scheduled at Baptist Hospital, Nashville, for the two week period beginning July 10, 1967. The course, supported by the Public Health Service and the Middle Tennessee Heart Association, will be open to any graduate nurse in Tennessee.

The first week of the course will include lectures on the basic anatomy and physiology of the heart as well as arrhythmias and their electrocardiographic interpretation. The second week includes lectures on coronary artery disease, myocardial infarction and its complications, and further instruction in electrocardiographic interpretation. There will be practice in the use of the various monitors and defibrillators used in coronary care units. Individual instruction and demonstration will be an integral part of the course.

At a later date, a third week will be spent gaining practical experience in a coronary care unit. For further information, write to the Director, Coronary Care Unit, Baptist Hospital, Nashville.



**Could it be
something
more than
growing
old that
“gets her
down”?**

T M A

THE VIEWING BOX

Doctor-Patient Communications*

Physicians firmly believe that one of the most important factors in good medical care, is good personal relationship and communications between doctors and their patients.

The word, "communication," in its varied form is much in vogue today. Webster defines communicate as "to make common to both parties . . . the knowledge or quality concerned." Psychologists put much emphasis on the importance of communication. They described it as one of the most helpful bases on which satisfactory human relations can be built—a prerequisite for needed rapport. And certainly it is essential for any patient and his doctor to be able "to make common to both parties" the knowledge each has to impart. Proper doctor-patient relations is today, and always has been a two-way affair—with mutual responsibilities resting on each.

Unfortunately the best doctor-patient relations are sometimes made more difficult due to present-day living and working conditions. Factors that work in reverse to the best adequate relations include vast changes in community structures, dispersal of families, increased mobility of the population and rapid trends toward necessary medical specialization.

It is true that there are those who sometimes speak slightly of their own personal relationship or lack of good communication with a doctor. But such cases are believed to be the exceptions and not the general rule. The statement made by Dr. Francis Peabody many, many years ago, holds equally true today. He said that "with the exception of the relationship that one may have with a member of one's family or with his spiritual leader, there is no human bond that is closer than that between physician and patient (or patient's family), and any attempts to substitute the methods of machine or organization, be they ever so efficient, are bound to fail."

It must be kept in mind that the type of doctor-patient relationship that Dr. Peabody was speaking of can not be expected to bloom into full flower in the course of a single office call, one physical examination or even a single illness. Strong doctor-patient relationships develop like strong friendships; that is, over a period of time. They mature and grow through the strong bonds that develop between persons and families and the doctor who has advised them in medical matters over a period of many years—"in sickness and in health."

The responsibilities for good relationship rest equally upon each individual patient as well as with his doctor. For example, when a family or individual moves to a new town, one of the first things that should be done is to select a medical adviser, family doctor or personal physician. Write or call on him **BEFORE ILLNESS OCCURS**, and ask if he is willing to serve in that capacity.

It may be a wiser idea to visit the physician of your choice for a routine physical examination before making a final decision. If you are not satisfied with the way the physician conducts the examination, or if the necessary rapport for a mutual doctor-patient relationship seems to be missing in the initial contact, then you would be wise to search further, keeping in mind what you are seeking.

Physician and patient relations and communications should be a two-way avenue of understanding. Doctors are not immune to criticism, nor should they be. However, the common criticism of doctors that affect the patient relations so often, should be objectively analysed. Some of the more frequently heard ones are:

1. Doctors do not give the patient enough time to tell his story.
2. Doctors keep patients waiting too long.
3. Doctors do not explain the reasons for diagnosis and treatment.
4. Doctors will not make house calls.
5. Doctors charge too much.
6. The doctor's secretary will not let a patient talk to him on the phone.

*From the AMA kit, "Physician-Patient Relations."

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Unfortunately, at times there may be justification for some of these criticisms—but it surely should help the doctor-patient relationship if the patient could know and understand more of the doctor's problems as well as his point of view. Let's examine these enumerated complaints:

1. That a doctor may not give the patient all the time he wishes to talk and tell his story. Doctors are human, and when they know they are far behind schedule and have many patients waiting to see them, they are apt to show impatience with undue wordiness. Some patients repeat their complaints over and over, instead of giving a clear-cut analysis of their symptoms. It can require unlimited patience and far too much time to "get to the heart" of such a patient's trouble. One such patient can disrupt a doctor's schedule to such an extent that he feels rushed for the rest of the day, and may fail to give another patient the sympathetic, unhurried attention he knows he deserves.

2. That doctors keep patients waiting too long. Physicians are genuinely concerned about this and various ways and means to remedy it are being studied and discussed and tried. But it is seldom that any two patients require the same amount of time. And the doctor who gives *all* his patients *all* the time they would like is sure to get far behind in his appointments.

About the best a doctor can do is to work by appointment, allowing a reasonable amount of time for each patient. Usually he is required to give new patients more time than those who are making return visits. The patient, in turn, should cooperate by being on time for appointments and by giving his history as clearly and concisely as possible. Also, occasionally, an emergency will throw a doctor very far behind in his appointments, and about all he can do is to hope that "his patients will have patience" and understand.

3. That doctors do not explain the reason for diagnosis and treatment. No matter how busy a doctor is, he should take time to explain to his patients, in the simplest words possible, the nature of their ailments and the results to be expected of the treatment recommended. Such explanation is particularly important when the symptoms

are caused by emotional stress. Or the simple assurance that no cancer or serious organic trouble is present, is often a big help in affecting a cure, or at least considerable improvement.

Sometimes the breakdown in communications between doctor and his patients is partly the patients' fault because they are unwilling to admit that they don't understand medical language and they won't ask the physician to translate into "plain English." Since doctors are not mind readers, it is the patient's responsibility to ask the doctor any question about his problem that may seem important. This is part of the "collaboration of candor" that is an essential part of the doctor-patient relationship.

Patients who have a serious organic disease should be told about it in the least alarming terms possible. Patients can be told they have had a stroke or damage to their heart, without being greatly upset. Many a patient, in fact, is relieved to know that the closure of a small artery in his brain has caused digestive symptoms that he had feared, perhaps secretly, were due to cancer. In most cases, it is also important for the doctor to discuss more frankly and fully, with some responsible member of the family, the patient's condition, the treatment recommended, and the probable outlook.

4. That doctors will not make house calls. In most cases the doctor's preference for seeing patients in his office rather than going to their homes is justified. His office is much better equipped for making necessary examinations and tests than is the traditional black bag. In emergencies, treatment can often be obtained more quickly by taking the patient—in an ambulance, if necessary—to the emergency room of the nearest hospital than by waiting until the doctor can be located and can get to a patient's home. Treatment can be begun at once by the doctor on duty in the emergency room and continued by the family physician when he arrives.

In cases of acute illness, when the patient needs to be kept in bed but not necessarily hospitalized, most family doctors will go to the home. Before choosing a personal physician, it is wise to ask him if he is willing

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to make house calls if necessary. Realizing the value of the doctor's time, however, patients should not insist that he come to the house if they are able to get to his office without undue hardship.

It must be kept in mind that if modern doctors were required to make as many house calls as physicians did a generation ago, an acute shortage of doctors would result. The horse-and-buggy doctor spent 70 per cent of his time in going from one patient to another, leaving only 30 per cent to be devoted to his patients. The average doctor today spends only 10 per cent of his working day in transit, leaving 90 per cent for his patients.

5. That doctors charge too much. While it is true that there are a few doctors who are more commercial-minded than others, most doctors are reasonable in their fees. A doctor's education represents a great deal of money, time, and energy. The same amount of cash and brain power invested in some business would usually bring him greater financial reward than the practice of medicine.

Perhaps this comparison is pertinent: In 1920 the charge for a house call by a physician ranged from \$3 to \$5. Today they vary from \$7 to \$10. During the same period the price of potatoes went from 39 cents a bushel to \$5.40. Yet, we hear few complaints about the present price of potatoes. In the past 20 years physicians' fees have risen about 95 per cent. But per capita incomes during this period rose 290 per cent. The real cost of medical care—in terms of hours of work to purchase it—is less today than it was 20 years ago.

6. That doctor's secretary will not let one speak to him on the phone. Except in a real emergency, no thoughtful person would expect the doctor to interrupt his interview or examination of a patient to answer the telephone. Certainly any person who did make such a demand would resent it if the picture were reversed and the physician were interrupted a number of times while he himself was a patient in the office. The secretary has a definite responsibility to try to shield her employer from

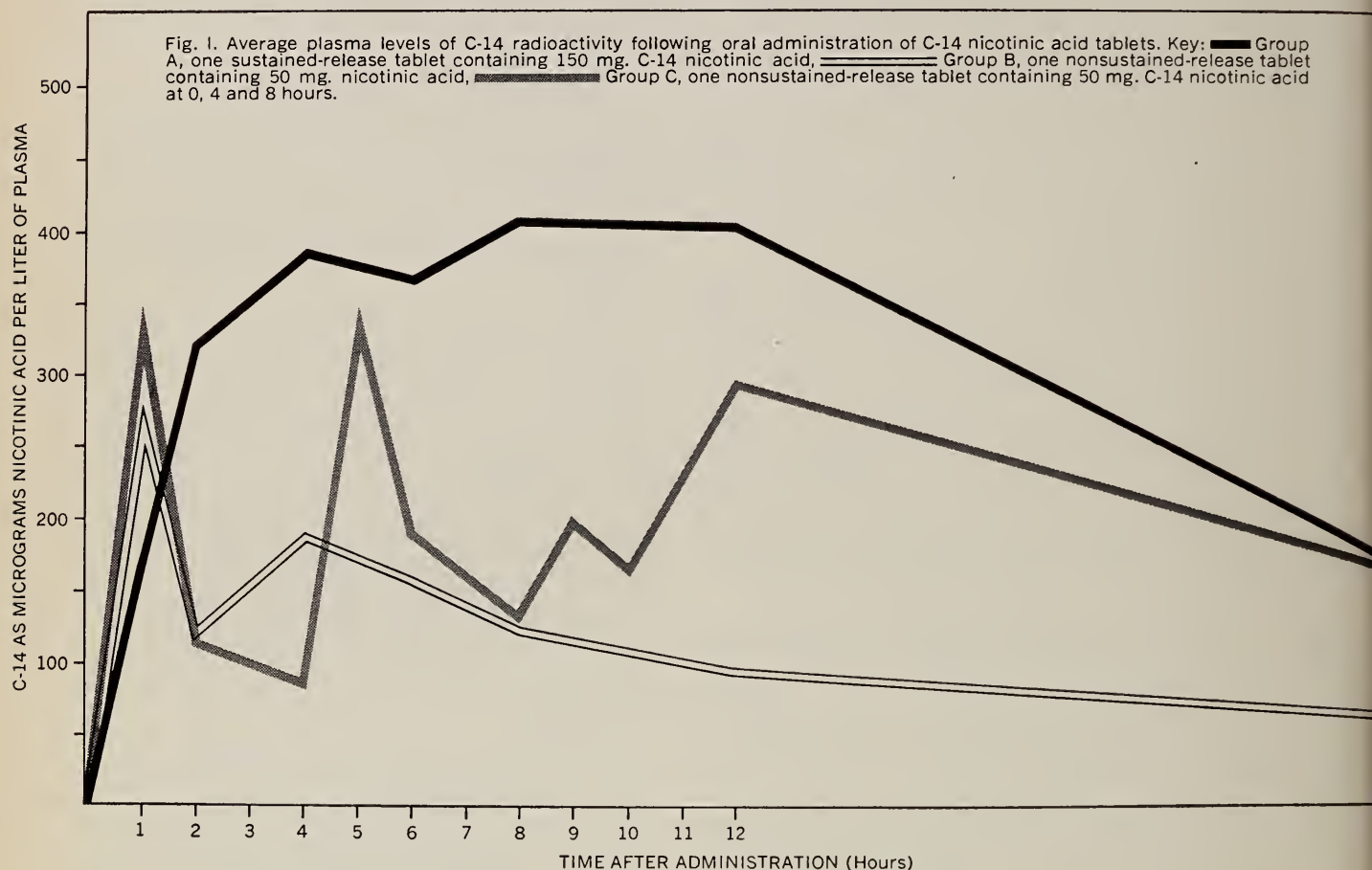
as many interruptions as possible while he is concentrating his attention on a patient, and will usually ask the caller to leave his name and number so that the doctor can phone him later. If a real emergency arises, however, the experienced secretary will sense it and put the call through. She knows most of the patients well enough to know which ones are considerate and which ones are not.

Many doctors set aside a period of time between or after office appointments for returning telephone calls. The person who has left a message for the doctor to call should do his best to keep the phone free during the time the return call might be expected.

Some patients resent being asked by the doctor's secretary about the nature of their difficulty. Reluctance to discuss intimate problems with a third party is understandable. However, the patient should realize that the secretary has been instructed by the doctor to ask for certain information. And in such cases, it isn't necessary to give a detailed report of symptoms, but only to let the doctor have some idea of what the trouble is, so that he will be prepared to deal with it when he returns the call or sees the patient.

Sir William Osler said that "medicine should begin with the patient and end with the patient." He believed it was important to know what sort of patient had the disease as well as what sort of disease the patient had. Not only does the modern physician believe this to be equally true today, he also believes and knows that men are one of the most complex and sensitive of all organisms; they have emotions, appetites, ambitions, fears, hopes, loves, and passions, all of which disturb them mightily; if anxiety can be called a disease, it is probably the most common of all afflictions. Not even the most sophisticated techniques in the scientific methods can measure these factors. They can be evaluated only by an understanding human being. Good doctor-patient relations depend today, as they did yesterday, on mutual understanding and trust and cooperation by *all* concerned.

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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

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JUNE, 1967

NO. 6

Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Memphis—April 13-15, 1967

The House of Delegates of the Tennessee Medical Association met at the Sheraton-Peabody Hotel, Memphis, Tennessee, April 13-15, 1967, in conjunction with the 132nd Annual Meeting of the Association with Dr. Tom E. Nesbitt, Speaker of the House and Dr. R. L. DeSaussure, Vice-Speaker, presiding.

The invocation was rendered by Dr. John H. Burkhart, Knoxville.

DR. JOHN H. BURKHART: "Almighty God, our Father, Thou who created man in Thine own likeness and then entrusted to him the duty of serving Thee and his fellowmen, we who are further charged as members of a serving profession acknowledge our call and seek Thy blessing. Keep us always mindful that the foundation of our profession rests firmly on ethics as well as science and education, and that its proper application is as much art as skill and as much compassion as either. As we convene today in this assembly of delegates, representative of the physicians of Tennessee, to hear by reports how well this Association has carried out its work in the past year, to enact by resolution and amendment what it intends for the present and the future, and to choose from among us those to whom we will entrust its leadership, we invoke Thy presence, Thy concern, and Thy inspiration. As Thou has called us to do thy will enable us to know it. Amen."

1966 Minutes Approved

The Speaker announced that the Minutes of the last regular session were reproduced in the June, 1966, issue of the JOURNAL of TMA and requested that a motion be presented to approve the proceedings as

published. It was moved and duly seconded that the Minutes of the 1966 regular session be approved as published in the June, 1966, issue of the JOURNAL. *The motion was adopted.*

Reference Committees

The Speaker announced the personnel of the Reference Committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

Committee on Credentials

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Sue W. Johnson, Shelbyville

Committee on Amendments to the Constitution and By-Laws

John H. Burkhart, Chairman, Knoxville
J. O. Williams, Mt. Pleasant
Thomas K. Ballard, Jackson

Committee on Resolutions

W. O. Vaughan, Chairman, Nashville
George G. Young, Chattanooga
J. Malcolm Aste, Memphis

Committee on Reports of Officers

J. J. Range, Chairman, Johnson City
Jos. L. Willoughby, Franklin
Tinnin Martin, Memphis

Committee on Reports of Standing Committees

B. F. Byrd, Jr., Chairman, Nashville
E. Kent Carter, Kingsport
Robert McBurney, Memphis

Committee on Reports of Special Committees

R. A. Calandruccio, Chairman, Memphis
Perry Williamson, Knoxville
Frank Womack, Nashville

**Committee on Outstanding Physician
of the Year**

Bland W. Cannon, Chairman, Memphis
R. H. Kampmeier, Nashville
John H. Burkhart, Knoxville

Nominating Committee

As required in the By-Laws, the Board of Trustees had appointed a Nominating Committee with representatives from each of the three grand divisions of the state, with no two members from the same county medical society. The Speaker announced the personnel of the committee:

East Tennessee:

John H. Saffold, Knoxville
E. L. Caudill, Jr., Elizabethton
George G. Young, Chattanooga

West Tennessee:

Harold B. Boyd, Memphis
Charles N. Hickman, Bells
Byron O. Garner, Union City

Middle Tennessee:

Chas. C. Trabue, IV, Nashville
John O. Williams, Mt. Pleasant
Wm. A. Hensley, Jr., Cookeville

**ELECTION OF OFFICERS AND
COUNCILORS
April 15, 1967**

The report of the Nominating Committee, Dr. George G. Young, Chattanooga, Chairman, was presented in the second session of the House of Delegates on Saturday, April 15. Nominees submitted by the Committee were voted upon individually and in each instance, the Speaker called for additional nominations from the floor.

President-Elect—Edward T. Newell, Jr., Chattanooga

Speaker—House of Delegates—Tom E. Nesbitt, Nashville

Vice-Speaker—House of Delegates—R. L. DeSaussure, Memphis

Vice-President (East Tennessee)—Julian C. Lentz, Jr., Maryville

Vice-President (Middle Tennessee)—Parker D. Elrod, Centerville

Vice-President (West Tennessee)—J. Howard Ragsdale, Ripley

Secretary—James N. Thomasson, Nashville

AMA Delegate (Middle Tennessee)—W. O. Vaughan, Nashville (January, 1968-December, 1969)

AMA Alternate Delegate (Middle Tennessee)—Wm. F. Meacham, Nashville (January, 1968-December, 1969)

AMA Delegate (West Tennessee)—Bland W. Cannon, Memphis (January, 1968-December, 1969)

AMA Alternate Delegate (West Tennessee)—Julian K. Welch, Jr., Brownsville (January, 1968-December, 1969)

AMA Delegate (State-at-large)—Tom E. Nesbitt, Nashville (January, 1967-December 1968)

AMA Alternate Delegate (State-at-large)—A. Roy Tyrer, Jr., Memphis (January, 1967-December, 1968)

TRUSTEES:

Middle Tennessee—Robert L. Chalfant, Nashville (1970)

East Tennessee—John H. Saffold, Knoxville (1968) To complete unexpired term of Dr. Edward T. Newell, Jr., Chattanooga.

COUNCILORS:

Second District—J. Marsh Frere, Knoxville (1969)

Fourth District—Claude M. Williams, Cookeville (1969)

Sixth District—B. K. Hibbett, III, Nashville (1969)

Eighth District—Charles N. Hickman, Bells (1969)

Tenth District—B. G. Mitchell, Memphis (1969)

Nominees for Public Health Council: (Three from Middle Tennessee, one of whom to be subsequently appointed by the Governor)

Kirkland W. Todd, Jr., Nashville

Carl E. Adams, Murfreesboro

Edward R. Atkinson, Clarksville

Nominees for Board of Trustees of the State Tuberculosis Hospitals: (Three from West Tennessee, one of whom to be subsequently appointed by the Governor)

R. David Taylor, Dyersburg
Wm. B. Acree, Ridgely
Joe Campbell, Union City

THE ABOVE NOMINEES WERE ELECTED BY THE HOUSE OF DELEGATES

TENNESSEE'S OUTSTANDING PHYSICIAN

Dr. Raphael Eustace Semmes, Memphis, was named Outstanding Physician of the Year in Tennessee for 1967.

Dr. Semmes is an attending neurosurgeon at Baptist Memorial Hospital, Memphis, Tennessee, consulting neurosurgeon for Hospital for Crippled Adults, and consulting neurosurgeon for Crippled Children's Hospital, St. Joseph Hospital, and is area consultant in neurosurgery in the Veterans Administration, Southeastern States. He is a member of the Society of Neurologic Surgeons, The Harvey Cushing Society (Founders Group) (President 1939-40), Southern Neurosurgical Society (organizing President 1949-1950), Memphis and Shelby County Medical Society, American Medical Association, Southern Surgical Association, Southern Medical Association, The Memphis Neurological Society (organizing President 1959), and honorary member of the American Academy of Neurological Surgery. He is a member of the Tennessee Neurosurgical Society. He is a member of the Phi Rho Sigma Medical fraternity and a Phi Beta Kappa at Johns Hopkins University. He was elected to Alpha Omega Alpha at the University of Tennessee.

Dr. Semmes has devoted more than fifty years to the teaching of neurologic surgery and contributed greatly to the literature in this field to become internationally renowned as a scholar, a surgeon, and a gentleman.

DR. RAPHAEL EUSTACE SEMMES, Memphis, was unanimously elected by the House of Delegates as Outstanding Physician of the Year for 1967.

AMENDMENTS TO CONSTITUTION AND BY-LAWS

Amendment to Constitution Lying on Table

The Speaker called for action on an amendment to the Constitution lying on the table from the last regular session of the House of Delegates. As required in the Constitution and By-Laws, a copy of the

Amendment and the recommendation of the 1966 Reference Committee had been forwarded, sixty days in advance of the meeting, to all county medical societies.

Amendment to Constitution—No. 1 (Introduced in 1966)

Amend Article VIII, Section 2 of the Constitution, by deleting the words, "and no Trustee shall be eligible immediately to succeed himself" and substituting the words, "and shall hold office for not more than two consecutive three-year Terms"; and by inserting the sentence, "A Trustee elected to complete an unexpired term shall be eligible for two additional terms." Section 2 of Article VIII would then read:

"The elected Trustees shall serve for a period of three years, and shall hold office for not more than two consecutive three-year terms. A Trustee elected to complete an unexpired term shall be eligible for two additional terms. The Board of Trustees will organize by the election of a Chairman, and a treasurer for the six elected as Trustees."

The Reference Committee on Amendments to the Constitution and By-Laws in 1966 recommended that the Amendment not be adopted since this would offer the opportunity for the perpetuating of an individual in this office for a number of years inconsistent with the present policy of rotation of individuals through other offices in the Society.

ACTION: THE HOUSE APPROVED THE RECOMMENDATION OF THE REFERENCE COMMITTEE AND AMENDMENT No. 1-66 WAS NOT ADOPTED.

Amendments Introduced in 1967

The Reference Committee on Amendments to the Constitution and By-Laws considered all proposed amendments to both the Constitution and By-Laws. Under the required waiting period, all Constitutional amendments introduced in 1967 will be presented for action by the House of Delegates in 1968. Amendments shown here are in the form in which they were approved, rejected, amended or deferred for action by the House of Delegates.

Amendment to Constitution—No. 1

Be it resolved that Article IX of the Constitution of the Tennessee Medical Associa-

tion be amended by adding at the end of such article an additional section as follows:

"Section 7. The Board of Trustees shall have such powers to invest the funds of the Association as are granted by law to General Welfare Corporations as such law from time to time may be amended."

The Reference Committee recommended adoption of Amendment No. 1 to the Constitution.

TO BE ACTED UPON BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1968.

Amendment to By-Laws—No. 1

Amend Chapter VIII, Section 8, Item 8, by changing the word "Grievance" to "Mediation." Amend Chapter VIII, Section 16, by changing the word "Grievance" to the word "Mediation." Amend the Index for the By-Laws by changing the listing of the "Grievance Committee."

(The above amendment would merely change the name of the Grievance Committee to the Mediation Committee and with this change these sections of Chapter VIII would remain as they appear in the By-Laws.)

The Reference Committee recommended adoption of Amendment No. 1 to the By-Laws.

ACTION: ADOPTED

RESOLUTIONS

The Reference Committee on Resolutions has the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted, for referral, or for no action. The Resolutions shown are in the form in which the House of Delegates **adopted, referred or rejected** them.

RESOLUTION NO. 1-67

Discontinue Nominations to Tennessee Hospital Service Association Board of Directors

By: BOARD OF TRUSTEES

WHEREAS, in 1964, the TMA House of Delegates adopted a resolution recommending and instructing the Nominating Committee to submit to the House of Delegates, five nominees that would be submitted to the Tennessee Hospital Service Association to fill vacancies on the Board of Directors of the Tennessee Hospital Service Association, and

WHEREAS, in previous years, the Tennessee Medical Association was vitally involved as the

result of sponsoring the "Tennessee Plan" of health insurance, and

WHEREAS, in 1966, the House of Delegates of this Association took action to discontinue the "Tennessee Plan" which resulted in the Association ceasing to have any reason for continuing the policy of the Association to name nominees for possible appointment of physician members of the Board of Directors of the Tennessee Hospital Service Association; now therefore be it

RESOLVED, that policy be adopted by this House of Delegates to discontinue the submission of five nominees of the Tennessee Medical Association to fill any vacancies of the physician members on the Board of Directors of the Tennessee Hospital Service Association.

The Reference Committee on Resolutions recommended adoption of Resolution No. 1-67. The Committee further recommended that the Board of Trustees invite physicians who are Tennessee Hospital Service Association Board members to make, through the chairman of the Medical Advisory Committee to the THSA Board, an annual report to the TMA House of Delegates regarding matters of mutual interest to the Tennessee Medical Association and the Tennessee Hospital Service Association.

ACTION: ADOPTED

RESOLUTION NO. 2-67

Study Committee of the House of Delegates to Consider the Permanent Method of Selection of a Fourth Delegate to AMA

By: BOARD OF TRUSTEES

(An amendment recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, since the Tennessee Medical Association's membership now exceeds 3,001 members of the American Medical Association, thus making TMA eligible for a fourth delegate in the House of Delegates of the American Medical Association for the year 1967, and

WHEREAS, it is incumbent upon this House to select a fourth delegate and alternate delegate at this session for the year 1967, and

WHEREAS, the members of the House have not had sufficient time to study all facets involved with the selection of a fourth AMA delegate; now therefore be it

RESOLVED, that a study committee of this House of Delegates be approved and appointed by the Speaker, to make a study of this issue and report at the next regular session of the House for

the purpose of recommending a permanent policy to be followed in the selection of a fourth delegate, **in order that we might have the most effective representation for the Tennessee Medical Association in the House of Delegates of the American Medical Association.**

The Reference Committee recommended adoption of Resolution No. 2-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 3-67

Reiteration of Policy and Definitions of Usual and Customary Fees as Payment for Physicians' Services

By: BOARD OF TRUSTEES

(An amendment recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, the Tennessee Medical Association adopted policy, through this House in April, 1966, regarding the payment of physicians' services according to usual and customary fees, in any government supported health care program, and

WHEREAS, the Council on Medical Service of the American Medical Association has recommended a definition of "usual, customary and reasonable charges", such definition not having been previously adopted by the Tennessee Medical Association, and

WHEREAS, Public Law 89-97 (Section 1842-B, Page 26) states that the customary and reasonable charges made by physicians shall be paid for services rendered; now therefore be it

RESOLVED, that the Tennessee Medical Association endorse and support the American Medical Association's position that this organization should resist any effort by any governmental or other agency to establish fixed fees for physicians' services and procedures under physician supervision; and be it further

RESOLVED, that the Tennessee Medical Association reaffirm its position that physicians should be reimbursed for services rendered in any and all government supported health care programs, including that of Title XVIII and Title XIX of Public Law 89-97 **and Title II as it applies to Crippled Children's Service**, and military dependents medical care programs on the basis of usual and customary fees; and be it further

RESOLVED, that the definitions of usual, customary, and reasonable as recommended by the Council on Medical Service of the AMA be endorsed by the TMA to the end that: "The usual charge" being defined as that amount which the individual physician commonly establishes as fair recompense for a specific service; "customary charge" to be considered within the range of usual charges made by physicians for the same

service within the same geographic or socio-economic area; "reasonable charge" to be defined as a charge which meets the criteria of "usual" and "customary" charges as justified by the special circumstances of the particular case in question; and be it further

RESOLVED, that the final determination of the reasonable charge in any event, should be resolved by a duly constituted review committee of a component medical society of the Tennessee Medical Association, having jurisdiction when requested to do so. If no such medical society exists in the area, a review committee of the Tennessee Medical Association would serve this function.

The Reference Committee recommended adoption of Resolution No. 3-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 4-67

Reiteration of Policy for Physician Billing Procedure

By: BOARD OF TRUSTEES

(Amendments recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, the personal and venerable doctor-patient relationship, which the medical profession had endeavored to protect and **preserve** through the years now stands in jeopardy, and

WHEREAS, the Federal Government has determined under Public Law 89-97 to intervene and to assume responsibility for financing the medical care of certain segments of the population, and

WHEREAS, the physician's particular responsibility is to the patients he serves, regardless of a third party involved, and

WHEREAS, the Tennessee Medical Association should approve and endorse the action of the American Medical Association to the end that when government assumes financial responsibility for an individual's health care, reimbursement for professional medical services should be on the same basis as in the case of other indispensable elements of health care, thus reimbursement for the services of physicians participating in government sponsored programs should be on the basis of usual and customary fees for their services; now therefore be it

RESOLVED, that the Tennessee Medical Association again urge its members to study carefully the several mechanisms available for compensating physicians for services rendered under P.L. 89-97; and be it further

RESOLVED, that the Tennessee Medical Association hereby specifically endorses the action of the AMA to the effect that it is recommended that when government assumes financial responsibility

for an individual's health care, reimbursement for professional services should be on the same basis as in the case of other indispensable elements of health care; and be it further

RESOLVED, that inasmuch as the reimbursement provisions of P.L. 89-97 allow the patient to assume his rightful responsibility, the physicians of the state be encouraged by this House of Delegates, insofar as possible, **to advocate this course and not elect to employ the assignment mechanism in its present form**; and be it further

RESOLVED, that the Tennessee Medical Association encourage its members to present to their patients their own statements of charges and accept compensation directly from patients for the professional medical services rendered.

The Reference Committee recommended adoption of Resolution No. 4-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 5-67

TMA Policy on Title XIX Under Public Law 89-97

By: BOARD OF TRUSTEES

(Amendments recommended by the Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, medical care of all persons in Tennessee is of great concern to physicians, and those persons who are unable to pay for such care are the responsibility of all citizens, and

WHEREAS, medical care for these persons should be furnished through a program of general taxation, and

WHEREAS, Title XIX of the Social Security Amendments of 1965 requires that each state designate a single state agency to administer medical assistance provided under this Title, and

WHEREAS, it is desirable that medical assistance programs be administered by medically trained and experienced personnel **at the local level**; now therefore be it

RESOLVED, that the policy of the Tennessee Medical Association pertaining to Title XIX of P.L. 89-97 be as follows: (a) that the medical profession of the state favors full implementation in Tennessee of Title XIX, insofar as the state is fiscally able to provide the services of the program on a sound basis; (b) that the administration of Title XIX be placed under the direction of the Tennessee Department of Public Health or a designated agency that is headed by a **doctor of medicine**; (d) that Title XIX provide the most simple mechanism for payment to those who provide services and that one fiscal intermediary be responsible for making payments under this program and that, preferably, this should be the same intermediary administering similar functions under Title XVIII, Part B, of P.L. 89-97; (d) that

claims review committees in all county medical societies in Tennessee be urged to actively pursue the work and responsibilities of such committees; and be it further

RESOLVED, that the Tennessee Medical Association support the position adopted by the American Medical Association, wherein physicians would have the right to bill their own patients, who in turn shall secure reimbursement from the state or its agents; and be it further

RESOLVED, that when a physician elects not to accept an assignment from government agencies or authorized carriers, that he and his patient alone shall determine the amount of the bill; and be it further

RESOLVED, that efforts by AMA be endorsed for amending the Law to provide specifically that billing under Title XIX can be the same as under Title XVIII, Part B, of P.L. 89-97 and **Title II as it applies to the Crippled Children's Service**; that the Tennessee Medical Association endorse the principle of freedom of choice of physician to all Title XIX beneficiaries; that the Tennessee Medical Association approves the option of direct billing principle to all patients and disapproves of any attempt where physicians would be forced to accept assignments in rendering care to welfare recipients; and that physicians' services provided under Title XIX in Tennessee be paid on the basis of usual and customary fees, the same as under Title XVIII, Part B, of the Medicare Law.

The Reference Committee recommended adoption of Resolution No. 5-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 6-67

Definition of Medical Indigency

By: BOARD OF TRUSTEES

(An amendment recommended by the Reference Committee and approved by the House of Delegates deleted the words "for physicians" following "for determination of medical indigency" in the Resolve.)

WHEREAS, the State Government is now studying and considering the establishing and implementation of a program of health care for persons that will be included in the Title XIX portion of Public Law 89-97, wherein these persons will be eligible for extended health benefits, and

WHEREAS, medical indigency is the inability to pay for needed medical and related services without severely curtailing the ability to pay for other necessities of life, and

WHEREAS, some guidelines need to be adopted now for the determination of medical indigency, and

WHEREAS, the American Medical Association in its official actions of its House of Delegates in June, 1966, adopted fifteen principles for the de-

termination of medical indigency; now therefore be it

RESOLVED, that the Tennessee Medical Association, through action of this House of Delegates, approve and endorse the principles for the determination of medical indigency as adopted by the American Medical Association in June, 1966, and that these principles become the policy for determination of medical indigency in Tennessee.

The Reference Committee recommended adoption of Resolution No. 6-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 7-67

Certification and Recertification Under P.L. 89-97

By: BOARD OF TRUSTEES

(An amendment recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, Section 1801, Title XVIII of Public Law 89-97, clearly states "nothing in this Title shall be construed to authorize any federal officer or employee to exercise any supervision or control over the practice of medicine and the manner in which medical services are provided, or to exercise any supervision of control over the administration or operation of any such institution, agency or person", and

WHEREAS, some interpretation has resulted that the action of the Department of Health, Education and Welfare as requiring that certification and recertification contain the words "medically necessary" and has so advised the participating hospitals, and

WHEREAS, some hospitals have adopted by administrative action, a specific certification form and are compelling members of their medical staffs to sign this form for Medicare patients upon threat of loss of admitting privileges for all patients, and

WHEREAS, such requirements of certification and recertification of "medical necessity" for hospitalization of Medicare patients does deviate from the ordinary procedure followed in providing hospital care to all patients, and

WHEREAS, compliance by staff physicians with such a requirement would establish the precedence of federal bureaucratic control over the individual practice of medicine, set the Medicare patient apart from other regular patients in their admission procedure for hospitalization, and have the effect of forcing physicians to participate in Medicare against their will, and

WHEREAS, all hospitals and health insurance carriers have always accepted an admitting diagnosis, adequate history and physical examination,

periodic progress notes as proper documentation for need of hospitalization; now therefore be it

RESOLVED, that the Tennessee Medical Association condemn any practice or procedure that has required special certification and recertification forms or statements of "medical necessity" and demand that any carriers and the various hospitals accept the usual method of hospitalization **and/or outpatient treatment for all patients**; and be it further

RESOLVED, that since the American Medical Association, at its Clinical Meeting in Las Vegas in December, 1966, took action to advise the Department of Health, Education and Welfare that the present requirements for certification and recertification have proven highly objectionable, unnecessary, and do not contribute to the quality of medical care; and be it further

RESOLVED, that the American Medical Association be supported in its endeavor to bring about repeal of those portions of P.L. 89-97 in which the requirement for physician certification of medical necessity appears; and be it further

RESOLVED, that the appropriate fiscal intermediaries or hospital organizations be advised that AMA will be available to assist in the development of appropriate amendments to this legislation. The purpose of this consultation would be to discuss the complexities of this requirement and to invite participation in the development of amendments to the Law which will be professionally acceptable and administratively workable.

The Reference Committee recommended adoption of Resolution No. 7-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 8-67

Direct Billing of Patients by Hospital-Based Physicians

By: BOARD OF TRUSTEES

WHEREAS, Title XVIII, Part B of P.L. 89-97 provides two methods by which a physician may bill his patients—(1) direct billing to the patient which permits the patient to deal with the intermediary; (2) acceptance of an assignment from the patient requiring the physician to deal with the intermediary for the collection of his account, and

WHEREAS, any physician may select either method for billing any patient to whom he renders care under this portion of the Act, and

WHEREAS, the doctor-patient relationship will best be preserved if the physician bills his patient directly under Title XVIII, Part B, as well as the forthcoming program of Title XIX, and

WHEREAS, hospital-based medical specialists are engaged in the practice of medicine, the fees for the services of such specialists should not be merged with hospital charges, and charges for the

services of such specialists should be established, billed and collected by the medical specialist in the same manner as are the fees of other physicians, and

WHEREAS, the Tennessee Medical Association intends to continue vigorously in its efforts to prevent inclusion in the future of the professional services of any practicing physician in the hospital service portion of any health care legislation, and

WHEREAS, it is evident that the ethical questions arising from such relationships or arrangements can be greatly minimized or entirely eliminated through the regular use by every physician of the procedure of direct billing; now therefore be it

RESOLVED, that the term "direct billing" means and is hereby defined as the preparation of a separate bill for professional services on the physician's own letter head (or billhead), addressed to the patient, or the member of the patient's family legally responsible for payment of such services, and mailed or delivered to the patient; and be it further

RESOLVED, that the House of Delegates of the Tennessee Medical Association recommend to the physicians comprising its membership the use of direct billing for patients under Title XVIII, Part B and the proposed Title XIX of P.L. 89-97; and be it further

RESOLVED, that members of hospital medical staffs render their support to hospital-based specialists and assist them in the dissemination of information to their patients regarding this new concept of medical practice.

The Reference Committee recommended adoption of Resolution No. 8-67.

ACTION: ADOPTED

RESOLUTION NO. 9-67

Physician Representation on Governing Boards of Hospitals

By: BOARD OF TRUSTEES

(Amendments recommended by The Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, recent legislation and rapidly changing social and economic factors no longer permit physicians to remain aloof from the active supervision and responsibility of hospital affairs, and

WHEREAS, a voting interest in hospital affairs is essential to full expression of the physician's obligations and responsibilities, and

WHEREAS, the hospital medical staff is unable to meet its full obligation in behalf of the interest of the entire medical community, including both patients and physicians, in the absence of a

physician as a voting member of the governing board of a hospital, and

WHEREAS, the experience, training and responsibility of a physician are eminent qualifications for membership on the governing board of a hospital; now therefore be it

RESOLVED, that the Tennessee Medical Association recommends that each hospital should have adequate physician representation, or at least one **doctor of medicine**, on its governing board who shall **be elected by the hospital medical staff from its own membership**; and be it further

RESOLVED, that such representation shall take place, wherever feasible; and be it further

RESOLVED, that the Tennessee Medical Association be recorded as voting to importune and request the responsible hospital officials to provide adequate representation by physicians, duly elected by the medical staff, on the Board of Directors of each hospital; and be it further

RESOLVED, that the county medical societies be urged to seek the cooperation of their respective hospitals to implement this policy.

The Reference Committee recommended adoption of Resolution No. 9-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 10-67

One Fiscal Intermediary to Make All Physician Payments Under P.L. 89-97

By: BOARD OF TRUSTEES

(An amendment recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, payments made to physicians by more than one fiscal intermediary creates additional paper work, records and general misunderstanding of fiscal intermediary payments to physicians, and

WHEREAS, more efficient handling and the expediting of payments to physicians can be done more quickly and efficiently where only one fiscal intermediary is involved; now therefore be it

RESOLVED, that the Tennessee Medical Association, through this House of Delegates, go on record as preferring that one fiscal intermediary serve for the payments to physicians in the State of Tennessee, such fiscal intermediary to handle payments under P.L. 89-97 for all aspects of the Law under Title XVIII, Part B, **and Title II as it relates to the Crippled Children's Service** and all payments under the proposed Title XIX of the Medicare Law; and be it further

RESOLVED, that the appropriate department of the State Government of Tennessee be urged to select one and preferably the same intermediary for all other payments to physicians under Public

Law 89-97, to handle payments to physicians under the "buy-in" program of Title XVIII, Part B, payments for Old Age Assistance (OAA) beneficiaries.

The Reference Committee recommended adoption of Resolution No. 10-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 11-67

Urging Physicians to Take Active Role in Areawide Planning Activities

By: BOARD OF TRUSTEES

WHEREAS, physicians should be fully informed about areawide planning and must be assured that their interest and viewpoints are taken into account in the development of new plans, and

WHEREAS, the need for proper and adequate health facility planning is an important method for providing hospital and related health facilities, and

WHEREAS, at the same time planning would prevent expensive duplication of such facilities—the overall objective being the building of facilities that would operate at the least cost, consistent with quality care, and

WHEREAS, physicians' decisions largely determine when and where patients will go to the hospital, how long they will stay there, what accommodations the patients will be given, and what services the patients will receive; now therefore be it

RESOLVED, that the Tennessee Medical Association and its component medical societies in the state and individual physicians be encouraged to demonstrate cooperation and exert leadership in the formulation and operation of these regional hospital planning bodies, and be alerted to resist the enabling legislation which would convert this from a voluntary to a compulsory system.

The Reference Committee recommended adoption of Resolution No. 11-67.

ACTION: ADOPTED

RESOLUTION NO. 12-67

Labeling of Prescriptions

By: BOARD OF TRUSTEES

WHEREAS, the Council on Drugs of the American Medical Association has recommended that all physicians should adopt the policy of labeling prescriptions, making an exception only when such disclosure would be detrimental to the welfare of the patient, and

WHEREAS, the Council on Drugs of the American Medical Association has consulted with the officers of the national pharmacy organizations and strongly recommends that in the best interest of the patient, the prescription container, as a

rule, be labeled with the name and strength of the drug, and

WHEREAS, to implement this recommendation, the Council on Drugs of the American Medical Association suggests that the physician use two sets of prescription blanks, one which is for routine use and is imprinted with an order to label, or, he may write the word "label" on his personal prescription blank, if desired, and

WHEREAS, in emergency situations, such as accidental poisoning, overdosage, or attempted suicide, immediate identification of a prescription drug from the label may be life-saving, and

WHEREAS, the information is invaluable when the patient changes physicians, moves to another locality, or contacts the prescribing physician at a time when his records are not readily available, and

WHEREAS, the information on the label would be of value in group practices, allergic individuals, and would help to prevent mix-up between two or more drugs being taken concurrently, or between medications being taken by different members of the family, and

WHEREAS, the Council on Drugs of the American Medical Association has recognized that there are occasions when such labeling is inadvisable for psychological or other reasons, and that the physician is the one to make the decision, therefore it is believed that the advantages of labeling outweigh these objections in almost every incidence; now therefore be it

RESOLVED, by the Tennessee Medical Association, that insofar as practicable that all Tennessee physicians should adopt the policy of labeling prescriptions; and be it further

RESOLVED that the Board of Trustees of TMA recommends that the action of the Council on Drugs of the American Medical Association be endorsed and that this action become the policy of the Tennessee Medical Association.

The Reference Committee recommended that action not be taken on Resolution No. 12-67 and that it be referred to the Inter-professional Liaison Committee for further evaluation and consultation with state and local pharmaceutical associations.

ACTION: THE HOUSE APPROVED THE RECOMMENDATION OF THE REFERENCE COMMITTEE AND REFERRED RESOLUTION NO. 12-67 TO THE INTER-PROFESSIONAL LIAISON COMMITTEE.

RESOLUTION NO. 13-67

Commendation to Television Stations in Tennessee for Televising the Series "Spotlight on Medicine"

By: O. MORSE KOCHTITZKY, M.D., Chairman

**Communications & Public Service
Committee**

WHEREAS, television stations WDKI-TV in Jackson, WATE-TV in Knoxville, WLAC-TV in

Nashville, WRCB-TV in Chattanooga, WJHL-TV in Johnson City and WREC-TV in Memphis have cooperated with the Tennessee Medical Association and local county medical societies in presenting the television series "Spotlight on Medicine" by donating air time as a public service, and

WHEREAS, the series appeared during such time periods so as to reach the greatest number of persons possible in the viewing areas, and

WHEREAS, two hundred and twenty-two physician members of the Tennessee Medical Association were afforded the opportunity to impart sound health information on various medical problems and surgical procedures via a total of thirty-nine hours of viewing time made available by the six stations named, and

WHEREAS, these stations have aided considerably in up-grading the public awareness of good medical standards as well as helping to create a greater respect for and a better understanding of medical tradition; now therefore be it

RESOLVED, that the Tennessee Medical Association hereby expresses its gratitude and appreciation to these television stations for the service each has rendered to the public and to the medical profession through the presentation of the television series "Spotlight on Medicine", and be it further

RESOLVED, that an individualized copy of this resolution be forwarded to the respective television station.

The Reference Committee recommended adoption of Resolution No. 13-67.

ACTION: ADOPTED

RESOLUTION NO. 14-67

Compulsory Prescribing of Drugs by Generic Names

By: ADVISORY COMMITTEE TO THE
DEPARTMENT OF PUBLIC WELFARE

WHEREAS, it is the duty of every physician to prescribe precisely that drug for the patient which he deems in his best judgment to be most efficacious, and

WHEREAS, ethically the physician is required to consider both the quality and the cost of the drugs prescribed, and

WHEREAS, the use of generic terms in prescribing drugs transfers to the pharmacist the prerogative of deciding which brand or quality of drug is to be used in filling the prescription, and

WHEREAS, the compulsory use of generic terms in the prescribing of drugs interferes with the physician's right to use his own best judgment in the prescribing of therapy for his patients; now therefore be it

RESOLVED, that the Tennessee Medical Association oppose any attempt by any governmental agency to require the use of generic drugs or generic terms in the prescribing of drugs by the

physicians of Tennessee in their private practice of medicine.

The Reference Committee recommended adoption of Resolution No. 14-67.

ACTION: ADOPTED

RESOLUTION NO. 15-67

Physician Supervision of Facilities Providing Institutional and Medical Care for the Mentally Retarded

By: ROBERT P. MCBURNEY, M.D., Memphis

WHEREAS, the population of the State of Tennessee is increasing and therefore the total number of mentally retarded individuals requiring institutional care is also increasing, and

WHEREAS, the State of Tennessee is and will continue to increase the number of facilities for the care of the mentally retarded, and

WHEREAS, such facilities for the care of the mentally retarded will inevitably tend to provide medical care for their mentally retarded inmates; now therefore be it

RESOLVED, that such facilities providing the aforesaid institutional and medical care for the mentally retarded be under the direction and supervision of a qualified and duly licensed M.D.

The Reference Committee recommended adoption of Resolution No. 15-67.

ACTION: ADOPTED

RESOLUTION NO. 16-67

Signature Requirements on Commitment Papers for the Mentally Ill Requiring Institutional Treatment

By: ROBERT P. MCBURNEY, M.D., Memphis

WHEREAS, the proper institutional care and treatment of the mentally ill is the responsibility of physicians, and

WHEREAS, the identification and diagnosis of mental illness is likewise the responsibility of physicians; now therefore be it

RESOLVED, that the laws of the State of Tennessee remain such as to require and allow only the signatures of duly licensed medical doctors as examiners on the commitment papers for the mentally ill requiring institutional treatment.

The Reference Committee recommended adoption of Resolution No. 16-67.

ACTION: ADOPTED

RESOLUTION NO. 17-67

Revision of Tennessee Criminal Abortion Statute

By: NASHVILLE ACADEMY OF MEDICINE

DELEGATION

(An amendment recommended by the Reference Committee and approved by the House of Delegates is shown in black-faced type.)

WHEREAS, the General Assembly for the State of Tennessee in the year 1883 adopted an act which remains the law in this state at this time and which provides:

"T.C.A. 39-301. Criminal Abortion—Penalty.

Every person who shall administer to any woman pregnant with child, whether such child be quick or not, any medicine, drug, or substance whatever, or shall use or employ any instrument or other means whatever, with intent to destroy such child, and shall thereby destroy such child before its birth, unless the same shall have been done with a view to preserve the life of the mother, shall be punished by imprisonment in the penitentiary not less than one (1) nor more than five (5) years.", and

WHEREAS, advancements in medical science have developed since 1883 to a point that recognition of indications tending to justify the interruption of pregnancy, other than "with a view to preserve the life of the mother", to wit: abnormal birth, incest and its consequences, mentally retarded parents and its consequences, as well as others, and

WHEREAS, severe penalties, civil and criminal, can be imposed if the aforesaid statute remains unchanged if pregnancy is interrupted except as provided therein, and

WHEREAS, serious problems have arisen in many states, though not Tennessee as yet, and

WHEREAS, many medical societies, including the American Medical Association, are currently concerning themselves with this problem, and

WHEREAS, the Nashville Obstetrical and Gynecological Society at its regular meeting assembled on January 24, 1967, concluded that the subject matter should be submitted to the House of Delegates of the Tennessee Medical Association for consideration and action; now therefore be it

RESOLVED, that the Tennessee Medical Association will study the existing law, explore apparent needs for its revision, and recommend suitable modifications for consideration by an appropriate session of the Tennessee General Assembly, in recognition of advancements in medical science since the original adoption of the criminal abortion statute in 1883, and be it further

RESOLVED that the Board of Trustees of the Tennessee Medical Association shall appoint a committee composed of members of the Tennessee State Obstetrical and Gynecological Society and representatives of the Tennessee Academy of General Practice for assignment to study, recommend and report its findings regarding this statute and possible revisions of it.

The Reference Committee recommended

adoption of Resolution No. 17-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 18-67

Insurance Reimbursement

By: CARL E. ADAMS, M.D., Delegate
Rutherford County Medical Society

(One amendment which changed a sentence of the Resolve to a Whereas, as recommended by the Reference Committee, is shown in black-faced type. A second amendment recommended by the Committee deleted words following "clinic or physician's office" in the Resolve.)

WHEREAS, the great majority of health insurance policies are written so as to specifically exclude payments for many services rendered in a physician's office or clinic but will pay for these same services when rendered in the emergency room or on an outpatient basis in a hospital; thus serving as an inducement to patients to seek these services at the hospital facility, and

WHEREAS, for the most part hospital emergency facilities are constructed and operated for the care of emergency conditions and do not have the personnel or facilities for caring for a large non-emergency group, and

WHEREAS, the infringement of this non-emergency group of patients creates an overload and leads to crowded conditions to the extent that the emergency group of patients may not receive the optimal care and immediate attention that is often times desirable, and

WHEREAS, it is held that the health insurance policies should provide benefits for a service rendered and should not so specify that this service must be rendered at some specific place, as the hospital, in order for the benefits to be collectable; and

WHEREAS, this might conceivably lead to fewer and shorter hospitalizations; now therefore be it

RESOLVED that steps be taken to encourage and negotiate with the health insurance companies to provide to the policyholder a policy covering services rendered regardless of where rendered as regards, hospital, emergency room, clinic or physician's office.

The Reference Committee recommended adoption of Resolution No. 18-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 19-67

Endorsement of Alvin J. Ingram, M.D., for Election to a Second Term as Trustee of the

American Medical Association

By: MEMPHIS-SHELBY COUNTY DELEGATION

WHEREAS, Alvin J. Ingram, M.D., Memphis, has served with distinction for the past three years as a member of the Board of Trustees of the American Medical Association, and in June, will be eligible for re-election to a second term, and

WHEREAS, Dr. Ingram's service has equipped him with a depth of knowledge about important issues faced by medicine as the result of his experience, contacts, assignments and wide acquaintances, and

WHEREAS, his experience and assignments have included: service on the original AMA Speakers Bureau; several important Reference Committees of the House of Delegates; service on the Gundersen Committee to review the organization of the AMA House of Delegates; service presently as a member of the "Health Manpower Committee" and the Board of Trustees' Committee on Planning and Development; service on the Board Committee to study the reorganization of the Board; serves as Chairman of a Review Committee which has made studies and recommendations to the Council on Drugs, Food and Nutrition, Postgraduate Assembly, Continuing Medical Education; and is completing a year as Chairman of the Board's Nominating Committee, and

WHEREAS, Dr. Ingram has attended every session of the Board of Trustees and has generously contributed of his time, talents, abilities and interest to medicine and the business of the American Medical Association, and

WHEREAS, Dr. Ingram is the first Tennessee physician to serve as an elected member of the AMA Board, and has conducted himself in a manner which reflects great credit upon the Tennessee Medical Association and justifies the high esteem and confidence in which he is held by the physicians of Tennessee and of this Nation; now therefore be it

RESOLVED, that the House of Delegates of the Tennessee Medical Association, representing the physicians of this State, express grateful appreciation to Dr. Ingram for his service and leadership as a member of the AMA Board; and be it further

RESOLVED, that he be unanimously endorsed and strongly supported by this Association for election to a second term on the Board and be it further

RESOLVED, that a copy of this resolution be forwarded to all delegates to the House of Delegates of the American Medical Association, urging their support of Dr. Ingram for a second term as a member of the Board of Trustees of the American Medical Association.

The Reference Committee recommended adoption of Resolution No. 19-67.

ACTION: ADOPTED

RESOLUTION NO. 20-67

Retention of Career Physicians in the Armed Forces

By: MEMPHIS AND SHELBY COUNTY DELEGATION

(Amendments recommended by the Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, the quality of medical care in the Armed Services is the interest and responsibility of every American, and

WHEREAS, providing quality medical care in the Armed Services requires a corps of physicians specially qualified and trained, both militarily and medically, and

WHEREAS, attracting and maintaining such career medical officers in the Armed Services is at this time both difficult and critical, due in large measure to (1) marked disparity between civilian income opportunities and present military pay standards, and (2) limited number of available appointments to Colonel/Captain and General/Admiral ranks in the regular Medical Corps; now therefore be it

RESOLVED that this is recognized as an immediate and urgent problem by the Tennessee Medical Association; and be it further

RESOLVED, that this resolution be introduced to the House of Delegates of the American Medical Association **with the request that** its Council on National Security and its Committee on Health Manpower **give immediate study to the problem for the purpose** of establishing a prompt, effective, and continuing solution; and be it further

RESOLVED, that the Board of Trustees of the American Medical Association be urged to exercise all reasonable influence and authority toward the accomplishment of this objective.

The Reference Committee recommended adoption of Resolution No. 20-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 21-67

Medico-Legal Liaison Committee

By: B. G. MITCHELL, M.D.

(Amendments recommended by the Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, attorneys and physicians in the State of Tennessee have enjoyed an interprofessional relationship of the highest order, and

WHEREAS, testimony of physicians in medical-legal matters either in court or by deposition has in the past been obtained in a cooperative spirit on the part of both professions without the need of a subpoena, and

WHEREAS, a breakdown in communications between the two professions along with a lack of cooperation and understanding in isolated instances has now produced problems of a magnitude sufficient to affect this voluntary system; now therefore be it

RESOLVED, that the House of Delegates of the Tennessee Medical Association does hereby request each **component** county medical society to establish **or reactivate** a medico-legal liaison committee whose prime function would be orientation of the membership as to individual responsibility, and to serve as intermediary in any dispute involving the two professions; and be it further

RESOLVED, that the Interprofessional Liaison Committee of the Tennessee Medical Association continue its effort to coordinate the activities of the two professions at the state level.

The Reference Committee recommended adoption of Resolution No. 21-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 22-67

Three-Day Hospitalization Provisions Under P.L. 89-97

By: JOHN O. WILLIAMS, M.D., Delegate
Maury County Medical Society

(Amendments recommended by the Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, under Title XVIII, P.L. 89-97, there is a provision that three days of hospitalization are required for diagnosis prior to a patient's being transferred to an extended medical care facility, and

WHEREAS, most patients already in nursing homes are there for domiciliary care and not extended medical care, and

WHEREAS, hospitals in our State are already over-burdened with the increased patient load caused by the implementation of Title XVIII; now therefore be it

RESOLVED, that the Tennessee Medical Association encourages all of its members to abide by the **Law** in that patients will not be transferred from nursing homes to hospitals and then returned to an extended care facility purely to **attempt** to meet the requirements of the Law when the patient's only need is domiciliary care.

The Reference Committee recommended

adoption of Resolution No. 22-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 23-67

University of Tennessee College of Medicine

By: MEMPHIS AND SHELBY COUNTY
DELEGATION

WHEREAS, The University of Tennessee College of Medicine is to be revisited by the accreditation body in 1969, and

WHEREAS, its educational program has been the subject of criticism by the accreditation body in the past, and

WHEREAS, the accreditation body has commended recent progress by the Medical College but strongly urges further improvements in its educational program, and

WHEREAS, the standing of the State's Medical College is vital to the health of the people of Tennessee, and

WHEREAS, the TMA passed a resolution at its 1966 meeting strongly urging adequate support of the College of Medicine; now therefore be it

RESOLVED, that the House of Delegates of the TMA reaffirm its concern for the welfare of the College of Medicine and emphasize its 1966 stand with respect to support of said college; and be it further

RESOLVED, that a copy of this resolution be forwarded to the Governor of the State of Tennessee, the Vice-Chairman of the Board of Trustees of the University of Tennessee, and the President of the University of Tennessee.

The Reference Committee recommended adoption of Resolution No. 23-67.

ACTION: ADOPTED

RESOLUTION NO. 24-67

Support of Diploma Schools of Nursing

By: CHATTANOOGA-HAMILTON COUNTY
DELEGATION

(Amendments recommended by the Reference Committee and approved by the House of Delegates are shown in black-faced type.)

WHEREAS, the majority of nurses employed by our hospitals come from Hospital Diploma Programs, and the diploma school graduate has demonstrated her ability to render the best possible care to the sick which is the primary aim of nursing education, and

WHEREAS, the Surgeon General's consultant group on nursing finds a need for approximately 850,000 professional nurses by 1970, and to reach

this goal schools of nursing must produce 53,000 graduates per year, by 1969, and they estimate our need for diploma school graduates to be 40,000, an increase of 13,722 over the past year, and

WHEREAS, there were 821 Diploma School Programs as of October 15, 1966, this being 53 less than on October 15, 1963, and an additional 59 schools have notified the National League for Nursing that they will be closing their programs by 1968, and

WHEREAS, there were 563 fewer nurses graduated in 1964-65 than the previous year from all three basic nursing programs (Baccalaureate, Diploma, and Associate Degree), and several hospitals in Tennessee have been forced recently to close parts of their hospital due to lack of nursing personnel, and

WHEREAS, the demand for the diploma graduate continues to exceed the supply and probably will for the foreseeable future, and the Diploma School Programs in nursing will be essential to provide the nursing needs of our people for the next several years, and

WHEREAS, the trend seems to be nationally and supported by the Tennessee Nurses' Association to phase out the diploma schools of nursing during the next few years and transfer all nursing education to institutions of higher learning, and the Tennessee Nurses Association recommends that no new hospital diploma programs in nursing be established in Tennessee; now therefore be it

RESOLVED, that the Tennessee Medical Association affirms its support of all nursing education programs in Tennessee including Baccalaureate, Diploma, Associate Degree and practical nurse education programs; and be it further

RESOLVED, that the Tennessee Medical Association acknowledge the great contribution being made to our communities in the care of the sick by the hospitals that carry on diploma schools of nursing education, and that these institutions be commended by our Association and urged to continue their schools and increase their enrollment to the fullest extent, always giving an individual the choice of the type of nursing education which he or she desires; and be it further

RESOLVED, that a copy of this resolution be **presented to the AMA House of Delegates in its annual meeting for consideration** so that the transfer of all nursing education to institutions of higher learning will be more gradual and will not contribute to an even greater crisis in the supply of available nurses.

The Reference Committee recommended adoption of Resolution No. 24-67 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 25-67

Payment of Medicare Benefits for Physicians' Services

By: A. ROY TYRER, JR., M.D.

WHEREAS, there has existed confusion, annoyance, and frustration on the part of all parties regarding the payment of Medicare benefits for physicians' services under Public Law 89-97, since the law prohibits assignment of benefit without concurrent agreement on the part of the physician to accept blindly, in advance, as payment in full, whatever payment, less deductibles, is deemed appropriate by the fiscal intermediary, acting as agent for the government, yet

WHEREAS, in the everyday practice of medicine, it is commonplace, routine, and customary to have patients assign prepaid insurance benefits to their physicians for medical services rendered, which payment arrangement by experience and custom is understood and generally accepted, and has proven practical to all parties, including the insured, the insuror, and provider of services, and

WHEREAS, this payment arrangement has no relationship with the fee charged, or has any direct or indirect bearing on the fee, which is established solely on the basis of the medical service rendered, and

WHEREAS, any patient or third party dissatisfied with a professional fee has the right and privilege to request its review by a Grievance Committee of the Local or State Medical Society; now therefore be it

RESOLVED, that payment of Medicare benefits for physicians' services constitute no difference from benefit payments of prepaid medical insurance, and should be paid in the simplest manner possible, including the assignment of benefits if this method be chosen; and be it further

RESOLVED, there should exist no relationship of any type between the assignment of Medicare benefits and the medical fee charged; and be it further

RESOLVED, that the American Medical Association take immediate steps through its Advisory Committee to the Department of HE&W, and its Council on Legislative Activities to seek amendment to Public Law 89-97 so that this existing deprivation with its attendant frustration and confusion can be corrected; and be it further

RESOLVED, that the Board of Trustees of the American Medical Association exercise all possible influence and authority toward accomplishing the objective of this resolution.

The Reference Committee recommended the following substitute resolution.

SUBSTITUTE RESOLUTION NO. 25-67

WHEREAS, there has existed confusion, annoyance, and frustration on the part of all parties

regarding the payment of Medicare benefits for physicians' services under Public Law 89-97, since the law prohibits assignment of benefit without concurrent agreement on the part of the physician to accept blindly, in advance, as payment in full, whatever payment, less deductibles, is deemed a reasonable charge by the fiscal intermediary, acting as agent for the government, yet

WHEREAS, in the everyday practice of medicine, it is commonplace, routine, and customary to have patients assign prepaid insurance benefits to their physicians for medical services rendered, which payment arrangement by experience and custom is understood and generally accepted, and has proven practical to all parties, including the insured, the insurer, and provider of services, and

WHEREAS, this payment arrangement has no relationship with the fee charged, or has any direct or indirect bearing on the fee, which is established solely on the basis of the medical service rendered, and

WHEREAS, any patient or third party dissatisfied with a professional fee has the right and privilege to request its review by a Mediation Committee of the Local or State Medical Society; now therefore be it

RESOLVED, that payment of Medicare benefits for physicians' services constitute no difference from benefit payments of prepaid medical insurance, and should be paid in the simplest manner possible, and be it further

RESOLVED, that the present assignment arrangement for Medicare benefits is completely unacceptable to the medical profession, and be it further

RESOLVED, there should exist no relationship of any type between the assignment of Medicare benefits and the medical fee charged, and be it further

RESOLVED, that utilization of the assignment mechanism for reimbursement of physician services as it is commonly and regularly utilized under prepaid insurance plans should be available for Medicare benefits, and be it further

RESOLVED, that the American Medical Association take immediate steps through its Advisory Committee to the Department of HE&W, and its Council on Legislative Activities to seek amendment to Public Law 89-97 so that this existing condition be corrected, and be it further

RESOLVED, that the Board of Trustees of the American Medical Association exercise all possible influence and authority toward accomplishing the objective of this resolution.

ACTION: THE HOUSE OF DELEGATES DID NOT ADOPT THE SUBSTITUTE RESOLUTION AS RECOMMENDED BY THE REFERENCE COMMITTEE AND TABLED THE ORIGINAL RESOLUTION NO. 25-67.

RESOLUTION NO. 26-67

Political and Socio-Economic Education in Undergraduate and Postgraduate Medical Education

By: BOARD OF TRUSTEES

(An additional resolve recommended by the Reference Committee is shown in black-faced type.)

WHEREAS, political education is essential to an understanding of and participation in the elective and legislative processes, and

WHEREAS, the survival of our free enterprise economic system and of our free enterprise system of medical practice in particular, is dependent on an effective understanding of the elective and legislative processes which characterize our political heritage and our system of governing, and

WHEREAS, political education is not a part of the curriculum in medical education today; now therefore be it

RESOLVED, that the Board of Trustees of AMA designate knowledgeable members or elected officials to visit the entire student body of each medical school in the United States; and be it further

RESOLVED, that these individuals discuss AMA perspectives as they relate to the socio-economic aspects of medical practice and the political milieu which nurtures our free enterprise system of medical practice; and be it further

RESOLVED, that the AMA Board of Trustees, or other appropriate group within AMA, study the feasibility of creating a mechanism by way of which AMA perspectives on socio-economic matters and political education, as they pertain to medical practice, can be presented on a continuing basis to medical student groups and other student groups as the opportunity permits; and be it further

RESOLVED, that the TMA delegation be requested to introduce a similar resolution at the annual session of the AMA in June, 1967.

The Reference Committee recommended adoption of Resolution No. 26-67 as amended.

ACTION: ADOPTED AS AMENDED

The Reference Committee recommended adoption of the report of the Reference Committee on Resolutions.

ACTION: THE HOUSE ACCEPTED THE REPORT OF THE COMMITTEE.

REPORTS OF OFFICERS

Report of the President

G. BAKER HUBBARD, M.D.

"As one concludes a year as President of this organization, its members have come to expect a

report of his stewardship. A politician would give a report of the 'State of the Union'. A candidate 'points with pride' or 'views with alarm'. However, one who has completed all these has a little more liberty, and I hope I can be a little more objective than the candidate or politician.

"It has been a privilege and a pleasure to serve as your President during the past twelve months. It has been the most rewarding experience of my life. I am proud to stand before you today and state to the hand-wringing prophets of gloom and doom that never has our Association been stronger—never has our Association been more involved in issues—never has our Association displayed more leadership on both a state and national level—never have so many of our Officers, Councilors, Committees, AMA Delegates and county society leaders worked so hard. The scope of medical association responsibility, activity and influence is almost beyond comprehension. It is not until one becomes involved in the work of medicine that its true accomplishments, as well as the benefits it provides to the profession and to the public, become readily apparent."

Pointing out that in 1967, the Tennessee Medical Association became eligible for a fourth AMA Delegate, Dr. Hubbard urged that serious consideration be given to the qualifications that these representatives should possess. He stated that these qualifications should include an understanding of the basic principles of organized medicine, knowledge of the problems, actions, policies and intent of the members of the TMA, and an ability to express himself forcefully in an understandable and explicit manner.

Dr. Hubbard's review of his activities revealed that a considerable amount of time had been spent in trying to improve and maintain rapport with other professional people and organizations, and intensive efforts had been made to improve relations and medicine's image with Legislators in the Tennessee General Assembly and in the U. S. Congress.

As required of the titular head of the Association, Dr. Hubbard spoke before many of the county medical societies, ancillary and para-medical organizations; attended innumerable state, regional and national meetings; and participated in frequent meetings to discuss Title XVIII and Title XIV under P.L. 89-97. He stated that meetings had been held with representatives of every facet of government agencies, including advisory committees, counseling firms,

the Governor, and the Commissioners of the various state departments.

The President emphasized his belief that the medical profession must assert itself strongly as the authority and leader in all matters relating to health.

"We cannot keep our heads in the sand and ignore the socio-economic changes that have taken place in our Country over the past ten years—changes that have already affected the practice of medicine and which could, in the future, alter our established traditions and concepts even more drastically. We must be astute enough to recognize the obvious—and the not so obvious—threats to our profession. And we must be courageous and firm in our efforts to thwart those threats."

"We are truly in a socio-economic revolution. Comprehensive health care is a phrase that has become so popular that anyone who is developing a program always entitles it 'comprehensive health care'. This word comprehensive means all inclusive, thorough, without limitation, and this is especially true when applied to health care. We are moving rapidly on the path to total health care by the federal government.

"Our hope lies in physicians being fully informed and to actively participate in planning and stressing the voluntary aspects of community health facilities, urging physicians to exert leadership in the formation and operation of the regional hospital planning bodies and to be alerted to fight enabling legislation which would convert this from a voluntary to a compulsory system. Through the Tennessee Medical Association, we still can freely express our views. Let's preserve our freedom. Let not apathy prevail among any of us but each one work his hardest to maintain those principles that we know are right to have the outstanding and best medical care in the world in Tennessee and in the United States. What does the future hold for physicians and their professional organizations? Unlimited opportunities to build a new tomorrow for American medicine."

THE REFERENCE COMMITTEE on Reports of Officers, J. J. Range, M.D., Chairman, commented on the report: "A report of a dedicated physician is given outlining his activities on behalf of the Tennessee Medical Association. This covered all facets of state and part of national medicine. He is particularly interested in our fourth AMA delegate. His insight into the necessity of our exerting major leadership in all phases of medicine is a striking thought. His analysis of governmental medicine shows our need to take the lead in helping formulate enabling legislation to these Acts. He recognizes our Country's socio-economic revolution and speaks of its implications. He acknowledges the help of his fellow members and the administrative staff of TMA."

THE HOUSE accepted the report.

Report of the Secretary

ROBERT M. FINKS, M.D.

As a member of the Board of Trustees, the Secretary met with the Board in its reg-

ular meetings and participated in the determinations and policy decisions of the Board. In addition, the Secretary frequently represented the Association in special meetings and discussions with related medical organizations.

A detailed report was not presented since the Secretary of the Association is primarily a constitutional officer and his duties are commonly associated with the office of secretary in similar organizations. Other than signing official documents, his duties are mainly administered by the Executive Director and the headquarters staff.

THE REFERENCE COMMITTEE on Reports of Officers recommended acceptance of the report as presented.

THE HOUSE accepted the report.

Report of the Board of Trustees

JOHN C. BURCH, M.D., Chairman

The Board of Trustees held four regular meetings in April, July and October, 1966, and in January, 1967. Since it is necessary for the Trustees to have a thorough knowledge of the actions and policies adopted by the American Medical Association, the Chairman of the AMA Delegation, as well as the AMA field representative for Tennessee, were invited to attend all meetings.

Minutes of the meetings were abstracted and published in the JOURNAL in the earliest issue available following each meeting. The report of the Chairman outlined actions and decisions of the Board during the year:

—Appointed the personnel of all standing and special committees; members of the Board of Directors of IMPACT; recommended appointments to the Board of Directors of TMA's Student Education Fund; selected delegates from the three grand divisions of the State to compose the 1967 Nominating Committee; and directed that a member of the Board attend each of the Reference Committee meetings of the House of Delegates.

—Established a Committee on Governmental Medical Services to deal with the overall facets of all state and federal health care programs.

—Followed the activities of all committees during the year. Committee chairmen frequently appeared to request directives and, in some instances, funds for proposed programs. Written reports were also received and evaluated on completed programs and activities.

—Considered the year's financial audit and quarterly financial statements. Approved the budget for 1967. Allocated funds for reimbursement of travel expenses to physicians volunteering their services in the First Aid Sta-

tion established in the Capitol during the legislative sessions. Approved employment of Mr. Jerry Flippin of Milan, Tennessee, to assist TMA during this session of the Legislature. Approved funds for meetings to be held over the state with legislators prior to the General Assembly. Approved a loan of \$17,000 to the TMA Student Education Fund. Established a headquarters building fund; approved expenditures for repairs to the headquarters building; and authorized the expenditure of funds to revise the method of keeping the TMA membership records.

—Approved an amendment to the Constitution to remove the present restrictions on the investment of TMA funds and bring the Constitution into conformity with the State Laws for all general welfare corporations.

—Approved the format for the 1967 annual meeting program, as developed by the Committee on Scientific Work. Recommended and approved the general scientific and socio-economic sessions to be presented by the TMA.

—Approved resolutions for presentation and consideration by the House of Delegates stating and reiterating TMA's policies on Public Law 89-97; physician representation on governing boards of hospitals; nominations to the Tennessee Hospital Service Association Board of Directors; method of selecting a fourth delegate to AMA; and recommending that insofar as practicable the physicians of Tennessee adopt the policy of labeling prescriptions.

—Selected five physicians to be appointed to the Medical Advisory Committee of the State for Title XIX. Endorsed the principle of individual responsibility in selection of the method of billing patients under Public Law 89-97. Recommended that TMA members be urged to study carefully the mechanisms available for compensating physicians and encouraged insofar as possible to advocate direct billing and not elect to employ the assignment method unless it is found to be most feasible to do so.

—Heard a report from the Chairman of the Board of Directors of IMPACT on its activities and accomplishments in 1966.—Accepted a report from the Acting Chairman of the Council re progress being made in resolving the problem of corporate practice of medicine in Tennessee.

In concluding his report, the Chairman emphasized the need for physicians to stand in support of their traditions and ethics in growing unity, and commended the Officers, Board of Trustees, Council, AMA Delegation, Committee Members, and others who devoted their time, efforts and talents to the complex responsibilities of the Tennessee Medical Association during the year.

THE REFERENCE COMMITTEE on Reports of Officers, J. J. Range, M.D., Chairman, commented on the report: "The Chairman gave a detailed report of the activities of the Board during the year. He dwelled on the progress made

in concluding the corporate practice of medicine, however, it was brought out in the Reference Committee meeting that this is mainly true of the radiologists, anesthesiologists, and psychiatrists, but not nearly so of the pathologists. He treated in similar fashion to the President, the question of a fourth AMA delegate and all that this entails."

THE HOUSE accepted the report.

Report of the Treasurer

JOHN C. BURCH, M.D.

Control of present financial resources, as well as anticipation of future needs is the responsibility of the Board of Trustees. The Association operates its fiscal affairs on a budget system, the budget being annually approved in the October meeting of the Board, and becomes effective on the first day of the following calendar year.

The Treasurer reported that the budget for 1966 was exceeded, however it was known in advance that a deficit would occur and it was met with reserves. The budget for the year 1967 is \$213,900.00. Anticipated income from all sources is \$213,900.00.

The customary examination of the Association's accounts as of December 31, 1966 was made by Grannis, Jones, Bond, Young & Foust, certified public accountants of Nashville.

The following is a consolidated financial operating statement for 1966 with a comparison to 1965.

Report of the Council

JOHN H. SAFFOLD, M.D., Acting Chairman

The annual reports from County Societies revealed very few individual violations of medical ethics. The most significant one involved improper relationship between a practicing physician and an osteopath. It was the opinion of the Council that a proper approach in establishing relationships with practicing osteopaths should be based on investigation of individuals; that these individuals must, first, on the basis of their records and activities, be practicing scientific and not cult medicine; and second, must be conforming in every respect to the Code of Ethics of the AMA in order to warrant an ethical relationship with practicing doctors of medicine; and that these two tests should be established as a trial or a probation period of agreement between the County

TENNESSEE MEDICAL ASSOCIATION Nashville, Tennessee OPERATING STATEMENT Year Ended December 31, 1966 (Consolidated Financial Statement—January 1- December 31, 1966)

INCOME

	1966	1965
Exhibits and Annual Meeting	\$ 9,505.00	\$ 8,113.00
TMA Dues	115,565.00	114,720.00
Journal Advertising	30,918.93	23,129.03
Investment Income	10,525.12	9,155.65
Miscellaneous Income	3,821.11	5,017.93
TOTAL	\$170,335.16	\$160,135.61

DISBURSEMENTS

AMA Delegates	\$ 3,717.42	\$ 4,324.68
Annual Meeting	12,167.72	13,480.89
Attorney and Auditing	7,700.00	5,150.00
Board of Trustees—		
Committees—Council	5,814.63	4,275.92
Headquarters Building	4,164.82	4,130.21
Journal TMA	42,507.57	33,618.91
Journal Overhead		
Allocated	(10,122.38)	(9,057.25)
Legislative Expense	4,545.55	9,193.03
Postage—Printing—		
Supplies	6,346.74	5,452.06
Payroll and Property Tax	2,661.50	2,610.33
Telephone & Telegraph	2,972.93	3,413.70
Staff Salaries	58,134.26	51,985.02
Staff Travel	5,843.66	4,850.64
IMPACT	1,000.00	1,000.00
Education Campaign (Eldercare)	—	7,034.77
Conferences—Officers, Rural Health, Mental Health, Medicare	4,480.25	640.97
Student Education Fund	17,000.00	—
TV Health Presentations	2,795.82	437.46
Miscellaneous and Other Expenses	13,102.29	4,806.07
	\$184,832.78	\$147,347.41
Excess of Income over Expenses	(14,497.62)	12,788.20

BALANCE SHEET

December 31, 1966

ASSETS	1966	1965
Current Assets	\$ 70,283.47	\$ 91,456.66
Reserves (Savings, Investments & Bonds)	225,456.59	216,240.09
Fixed Assets (Land, Headquarters Building & Equipment)	70,871.65	72,762.82
Liabilities (Accrued Payroll Taxes)	1,536.35	886.59

THE REFERENCE COMMITTEE on Reports of Officers recommended the acceptance of the report as submitted.

THE HOUSE accepted the report.

Medical Society and the individual osteopath.

The report outlined the progress made toward conclusion of the corporate practice of medicine. The Chairman stated that on February 1st, the Tennessee Hospital Service Association began paying radiologists by direct billing which in the opinion of the Council removed the last real obstacle to the implementation of the directive of the 1965 House of Delegates as it pertained to radiologists.

The Council, in December, 1966, in an effort to assist compliance by the pathologists took action to establish as minimal ethical standards that the pathologists will bill the patient directly for such services as the pathologist himself provides—namely, pathology, frozen sections, out-patient laboratory work, bone marrow studies, and such special laboratory and pathological examinations as may require his direct involvement. It will be acceptable that certain other arrangements such as salaries or percentages may be made with the hospital for the supervision of the clinical laboratory, training and supervision of personnel. It is to be understood that this is a minimal acceptable standard and that those pathologists who wish to go further in the matter of separate billing are to have complete support of the TMA and the Council in such arrangements as they work out above and beyond this minimum.

The Council believes that ethical standards have been established for hospital-based specialists; that the major obstacles to conclusion have been removed; and that this should now become a matter primarily for attention as an ethical problem for the appropriate committees or the Judicial Councils at the county level with the Council of TMA maintaining attention and advice in this area.

Other problems of ethics will demand constant attention and action by the Council.

"Reassessment, re-evaluation, and recommitment to our standard of ethics throughout medicine in this state is essential to the welfare of the Tennessee Medical Association, of all physicians in this state, and to the interest of the public which depends for its welfare upon our performance. Ethics may well be the sole and unique component of the organization of medicine

today which can make for medicine a great impact in today's society. It is essential that our ethical standards must be maintained."

THE REFERENCE COMMITTEE on Reports of Officers, J. J. Range, M.D., Chairman, commented on the report: The special problems of the Council were reviewed. Some of these were: Relations of physicians with osteopaths. Again, the corporate practice of medicine was thoroughly outlined and again it was pointed out that the only stumbling block now to conclusion is the individual physician taking the initiative to step out into separate billing. In the Reference Committee meeting, it was again pointed out that as yet, most of the pathologists had not complied with the directives of the House of Delegates. This group will be helped further. Minimum standards of compliance were outlined."

THE HOUSE accepted the report.

Report of Executive Director

J. E. BALLENTINE

It was the intent in the report of the Executive Director to present a comprehensive picture of the activities conducted by the Tennessee Medical Association during the past year. The report outlined the specific business of the Association, described the various activities and projects in which TMA was engaged, and listed the major accomplishments achieved since the 1966 meeting of the House of Delegates.

The Executive Director and the headquarters staff are vitally involved in every phase of the Association's activities. Regardless of the accomplishments of the Association during the year, it was understandably overshadowed by one of the most far-reaching events in the history of the nation—namely, the implementation of Medicare. As the result of this new program, medicine had to adjust to new problems, new regulations and new procedures.

The report pointed out that the Tennessee Medical Association is an expanding organization with many projects and programs—the range of its interest is a constantly growing process—it is acting and reacting in many ways to the socioeconomic development, changing laws, federal programs, legislative issues and changes in the environment of medicine.

The 1966 House of Delegates, the Board of Trustees, the Council and Committees of the Association took action on more than 150 separate matters that required definite implementation and staff processing during the past year.

TMA pursues a multitude of activities

with a budget of \$213,900.00 for the fiscal year 1967—it employs eight full-time staff persons and nearly 3,200 physicians are included on its membership roster. TMA is involved in health programs on the state and national level, as well as other health and welfare activities in Tennessee.

Under the heading of *Major Activities*, the report of the Executive Director revealed eighteen major activities and accomplishments for the year. In addition, the executive staff had administrative responsibility for the publication of a 72 to 100 page per month Journal; the organization, promotion and management of several statewide conferences each year, in addition to the annual meeting; the representation of the Association to an infinite variety of organizations and individuals in relationship to an infinite variety of problems; the processing and handling of a tremendous volume of daily correspondence, telephone and personal inquiries directed to the headquarters office; field work involving travel throughout the state and an ever-increasing requirement for out-of-state travel to regional and national conferences; liaison with all departments of the American Medical Association and other medical groups; personnel management, building maintenance and countless other administrative duties; and innumerable services to physician members.

Administration: The responsibility of the Executive Director and the TMA staff is as broad as the interest of the Association. The staff is required to carry out with maximum effectiveness many of the programs inaugurated by the House of Delegates, Board of Trustees, officers and the Association's committees.

Included as an addendum with the report was a staff organizational chart together with a descriptive outline of staff assignments and responsibilities.

Implementing: Business activities, finance, correspondence, records and research, planning, preparation and producing of materials are requirements of the headquarters staff. Legislation on the state and national level required much executive and committee time. The Association's field service activities were stepped up during the year. The "Spotlight on Medicine" TV

programs required considerable field work in the development of this activity. The entire area of cost and expenditures is important. The Executive Director receives and disburses all funds, subject to approval of the Treasurer; arranges for the annual audit; prepares quarterly financial statements for the Board of Trustees; and monthly statements are submitted to the Treasurer.

TMA MEMBERSHIP REPORT

As of January 1, 1967

	1966	1965	1964
Regular Dues Paying Members	2908	2880	2838
Veteran Members	211	199	200
Associate Members	48	51	52
TOTAL	3167	3130	3090
Deaths	56	53	60
AMA Members from Tennessee Medical Association:			
Dues Paying		2786	
Dues Exempt		246	
TOTAL ACTIVE		3032	
Associate		46	
TOTAL MEMBERS		3078	

Future Needs: The report contained three recommendations dealing with communication between physicians and their patients. In the years ahead, to cope successfully with government, physicians will be forced to rely more and more on their professional associations.

The report pointed out the increasing workload of the Association. The headquarters staff must be of a size which can assimilate new activities and assignments and handle them with skill. There is no room for an inefficient organizational structure to handle peak loads of activity and remain inactive during slack periods. The staff of eight full-time persons appears to be of a size where new or larger programs cannot be undertaken without additional personnel.

The report concluded with appreciation expressed to the Officers, Board of Trustees, Committees and hard-working physicians for their assistance in carrying out the work of the Tennessee Medical Association.

THE REFERENCE COMMITTEE on Reports of Officers, J. J. Range, M.D., Chairman, commented on the report: "Mr. Balentine's report shows that this Association is enlarging at a considerable rate and is far more encompassing in its scope. He is great in his praise of those who work with

him and his detail of the work done is enlightening to all of us."

THE HOUSE accepted the report.

REPORTS OF STANDING COMMITTEES

Report of Committee on Scientific Work and Editor of the Journal

R. H. KAMPMEIER, M.D.

The Editor called attention to the change in the format of the Journal in 1966 by interleaving of advertising pages with the scientific and other copy. This format resulted in improved support by advertisers and has been adopted by many of the state Journals as part of a more successful campaign of the Journal Advertising Bureau in selling advertisements.

Total pages for Volume 59 (1966) were 1,318, with the ratio of advertising to text pages still standing at about 60% and 40% respectively.

Dr. Kampmeier again reminded the membership that the Yellow Pages, President's Page and Editorial Pages continuously strive to promote better communication between the members and the officers of the TMA.

Scientific Program: The scientific program was altered from the pattern of recent years as the result of action taken by the Board of Trustees upon the recommendation of the Long-Range Planning Committee. Instead of devoting the scientific sessions entirely to the specialty societies, the morning programs again became the responsibility of the Committee on Scientific Work, with the afternoons assigned to programs of the specialty societies. The Committee met on August 14th with representatives of the specialty societies to arrange the time schedule for the various programs.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented on the report: "The Committee wishes to make a special note of the change in the format of the Journal of the Tennessee Medical Association which has, together with various other changes, resulted in an increase in revenue from advertising for the Journal. This has not materially affected the readability of the Journal and certainly is a praise-worthy improvement which deserves the special appreciation of the Tennessee Medical Association. The change in the scientific program must be evaluated on the basis of the reports arising from this meeting."

THE HOUSE accepted the report.

Report of Committee on Hospitals

A. ROY TYRER, M.D., Chairman

The principal concern of the Committee during the year had been to establish and maintain improved liaison with the Tennessee Hospital Association, and through this medium closer relations with the individual hospitals, their policies and their problems. To accomplish this, an Executive Committee of the Hospital Committee was established and an invitation was extended to THA to meet with this group on a regular quarterly basis. The invitation was accepted and regular meetings were held throughout the year with the leadership of THA and their Executive Director.

The Chairman stated that these meetings were exceedingly productive and fruitful and would be continued. Subjects discussed in these meetings included: the first aid station in the State Capitol during the legislative session; professional fees for hospital-based specialists; legislative issues; implementation of Title XIX; health manpower shortages and the support of the Health Careers Development Council; spiraling hospital costs; and increased hospitalization resulting from Medicare.

Two subjects which will be considered in depth with the Hospital Association at future meetings include the management and operation of emergency room facilities, and proper physician representation on the Board of Trustees of hospitals.

It was the opinion of the Chairman that significant strides had been made during the year in developing a closer and more cordial working relationship with the Tennessee Hospital Association, a relationship which is considered imperative to the best interests of the two organizations, and the many individuals each represents.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented: "This committee represents the appropriate bridge between the Tennessee Medical Association and the Tennessee Hospital Association for handling mutual problems and is to be commended for its exceedingly fine activities during the year."

The Reference Committee recommended: "that this Committee continue its activity in the Health Careers Development Council and that it study the advisability of the Tennessee Medical Association seeking increased representation on the Board of this Council. This good work maintains the position of the physician as a leader on the health team."

THE HOUSE accepted the report and approved the recommendation of the Reference Committee.

Report of Committee on Legislation and Public Policy

A. ROY TYRER, JR., M.D., Chairman

With the Tennessee General Assembly in session in 1967, the Committee had been very active during the year. Legislative bills which were prepared included: (a) Permissive legislation for Phenylketonuria testing; (b) Immunity for physicians serving on Hospital Utilization Review Committees; (c) Increase in the age of licensure for the operation of motor vehicle cycles; (d) Requirement to wear protective crash helmets when operating motor vehicle cycles; and (e) Amendment to the Mental Health Law enabling physicians to give depositions in lieu of appearing in court on commitment cases.

Legislative issues that were carefully studied and supported by TMA:

1. Licensure and regulation of medical laboratories by the Department of Public Health.
2. Amendment to the Post-Mortem Examination Law.
3. Required use of eye protecting devices in certain laboratories and training courses as proposed by the Tennessee Society of Ophthalmologists.
4. Legislation increasing the medical benefits under Workmen's Compensation Law.
5. Proposed Nurse Practice Act.
6. Legislation providing that the administration of Title XIX of Medicare be under the Department of Public Health.

Two bills opposed by TMA: (1) Legislation which would exclude doctors from their present subpoena immunity; and (2) Proposed fair pricing for certain types of insurance which would result in increased malpractice insurance rates.

With the lengthened term of the legislature and its continuing in session at the present time, it was pointed out that there would in all probability be additional legislative issues of concern to TMA.

Prior to the General Assembly, the Committee met with representatives of the Tennessee Hospital Association, Tennessee Nurses' Association and Tennessee Licensed Practical Nurses' Association to discuss the Nurse Practice Act; met with the Legislative Committee of the Hospital Association to discuss legislative programs of both organizations; and met with representatives

of the Department of Public Health to discuss their legislative program. Thirteen dinner meetings were held across the state with the newly elected legislators. The annual trip to Washington to meet with the Tennessee delegation was held in March. It was reported that the trip was considered highly successful with more participating than in any previous year.

The Chairman acknowledged the vital role of the TMA staff in the Committee's activities and the invaluable counsel and leadership provided by Mr. Charles L. Cornelius, Jr., and Mr. Jerry Flippin, TMA's legislative advisors. The report concluded with the following statement:

"Legislative issues are the concern of every physician today, for we are each practicing in partnership with the government and third parties, and I would, therefore, admonish every member of TMA to develop and maintain a keen and active interest in these matters. It is vital to you. If you do not participate in the decisions, someone else will make them for you, and odds are they will not be in your best interest."

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented: "This Committee has been most active during the past year and its actions are highly commendable. The actions of the Committee have resulted in the withdrawal of legislation which would exclude doctors from their present subpoena immunity. The Committee has established through the various carriers that legislation concerning fair pricing for certain types of insurance would not affect existing groups, nor specifically would it affect the existing arrangements for malpractice insurance which are satisfactory to the Tennessee Medical Association."

THE REFERENCE COMMITTEE recommended that this Committee review, with an eye to simplifying, a bill concerning the licensure and regulation of medical laboratories and that it advise with those physicians who are at present operating such medical laboratories to determine methods of simplifying this bill.

THE HOUSE accepted the report and approved the recommendation of the Reference Committee.

Report of the Liaison Committee to the Public Health Department

WM. A. HENSLEY, M.D., Chairman

The Chairman and members of the Committee attended two semiannual meetings of the Public Health Council in April and November, 1966. Items of particular significance discussed by the Council in the April meeting and concurred in by members of the Liaison Committee concerned oral poliomyelitis vaccine to pre-school children; continued participation of the Department

of Public Health in the Postgraduate Dental Seminar in the state; increase in the fee to the radiologist for treatment of cancer to patients; the approval of standardized statewide camping regulations; concern over the dangers of motorcycles and their particular hazards to the safety of youngsters under 21 years of age; and increasing the fees being paid by the Health Department for Pap Smears.

A motion adopted in this meeting directed that the Tennessee Medical Association be advised that the Public Health Council had accepted the report of the Advisory Committee of Crippled Children's Service to pay the physicians who are doing Crippled Children's Service work the usual and customary fee.

Several items of importance were presented, discussed and voted upon by the Council in the November meeting. The most significant of these included the observation by members of the Council that the fee being paid by some of the county health departments to physicians to staff prenatal clinics and family planning clinics under the Maternal and Child Health Programs were inadequate and recommended an increase in the fee to be paid and in no instance less than \$12.00 an hour. Considerable discussion concerned the operation of the Crippled Children's Service, relating particularly to the plastic and ENT surgeons, and pertinent motions were made to insure the continuity of treatment throughout its entirety by the staff member to whom the case was initially assigned.

Also in the November meeting, the Commissioner of the Department of Public Health, outlined proposed legislation deemed necessary and advisable by the Department and explained briefly what each bill would do. Copies of the proposed legislation, in addition to legislation drafted after the November meeting, had been furnished to the Liaison Committee and referred to the Legislative and Public Policy Committee of TMA. This proposed legislation included an Act to create a State Health Planning Council to comply with the federal act on this subject.

It was the opinion of the Committee and stated by the Commissioner of Public Welfare, "that the relationship between the De-

partment of Public Health and the TMA Liaison Committee had steadily improved over the years."

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, complimented the Commissioner of Public Health and the Chairman of the TMA Liaison Committee for the excellent cooperation which exists between TMA and the Public Health Department of the State of Tennessee.

THE REFERENCE COMMITTEE recommended "that the President of TMA be empowered by the Board of Trustees to submit to the Commissioner of Public Health, a list of names of physicians who will be willing to work with the Health Department on a Comprehensive Health Planning Program, and that this would effectively assist the implementation of the creation of a State Health Planning Council as required by Federal Law."

THE HOUSE accepted the report and approved the recommendation of the Reference Committee.

Report of Committee on Insurance

WM. T. SATTERFIELD, M.D., Chairman

Satisfactory progress on all TMA sponsored group insurance plans was reported for the past fiscal year. Enrollment of participating members had increased and claims were paid promptly and efficiently.

It was pointed out that 1967 marks the 25th anniversary of the Disability Plan. To commemorate the anniversary, the administrator of the plan, Smith, Reed, Thompson & Ellis Company, had offered a memorial type of gift to TMA. The Committee recommended that the Board of Trustees accept the gift with proper recognition.

In September, 1966, the administrator of the Major Hospital Plan was changed to Smith, Reed, Thompson & Ellis and the Committee reported that improvement in efficiency of its administration had resulted with this change.

Notice had been received by the Committee that major hospital coverage at 65 years of age will be modified because of Medicare. The Committee ascertained that this policy is, or will be, universal among carriers of over 65 which will pay \$100 a week for 52 weeks on hospital expenditures only. It was the opinion of the Committee that the major hospital benefits of the present plan are as attractive as those of any similar group and more attractive than most, however alertness to change is necessary.

Over 1,150 Tennessee physicians and dentists participate in the Investment Retirement Trust Plan. The regulated mutual in-

vestment fund has assets of over five million dollars and there is a death value in the pension life retirement insurance of over \$17,000,000. The estates of 17 deceased participants have benefited by over a quarter million dollars.

In concluding his report, the Chairman urged TMA members to utilize the sponsored plans and it was pointed out that greater benefits accrue in group insurance coverage as more members participate.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, recommended: "that the gift from the Smith, Reed, Thompson & Ellis Company be accepted by the Board of Trustees, and that special care be taken that this be put to some praise-worthy use by the Board of Trustees in a suitable activity and that acknowledgment of the gift be made to Smith, Reed, Thompson & Ellis."

THE REFERENCE COMMITTEE further recommended that local medical societies be encouraged to appoint a Liability Insurance Committee for the specific purpose of facilitating the fighting of nuisance claims at a community level.

THE HOUSE accepted the report and approved the recommendations of the Reference Committee.

Report of the Committee on Cancer

B. F. BYRD, JR., M.D., Chairman

There had been no occasion for a formal meeting of the Committee during the year, however, various members of the Committee had been involved in postgraduate education on cancer and cancer research and had been active in cancer control programs throughout the state in cooperation with the American Cancer Society. The Chairman expressed appreciation to the members of the Committee for their willingness and availability in connection with the cancer program of the Tennessee Medical Association.

THE REFERENCE COMMITTEE on Reports of Standing Committees recognized the standby capacity of the Committee on Cancer and commended the activities of the various committee members.

THE HOUSE accepted the report.

Report of Memoirs Committee

HENRY L. DOUGLASS, M.D., Chairman

The Memoirs Committee reported that fifty-six members of the Association died during the Calendar year, 1966. The names of the deceased physicians were listed in the prepared report.

"The gravity of this report, one of the longest

in recent years, gives pause for thought. In many ways their lives were similar. Their over-lapping careers covered a little more than the first half of this century. It was a turbulent period in human affairs when global war twice ran rife among the major powers with a brief interlude of uneasy peace. It was also a time when research, coordinated on a national scale, changed the face of things and revolutionized the technology of medical practice in less than a lifetime. Adaptation to rapid and far-reaching changes and dedication to the ancient precepts of the medical profession was their remarkable achievement. Patriotic in war, magnanimous in peace, they lived through two worlds of old and the new and combined the best in both. When some future generation writes the history of that epoch, they will say their contributions to human welfare, although equaled by others, were excelled by none."

THE REFERENCE COMMITTEE on Reports of Standing Committees acknowledged with regret the death of 56 members of the Association. "The years of service of these members represent an astonishing total and their loss will be deeply felt."

THE HOUSE accepted the report.

Report of Committee on Health Insurance

B. K. HIBBETT, III, M.D., Chairman

Activities concerning the Tennessee Plan were limited since this plan was discontinued as of April, 1967, by action of the House of Delegates in 1966.

The Health Insurance Committee met on several occasions to consider the possible development of a comprehensive non-service insurance plan that would pay physicians their usual and customary fees. The Committee met with representatives of the Tennessee Hospital Service Association to discuss the matter and though no definite plan has been devised, efforts will be continued to determine the feasibility and possibility of such a plan.

Committee on

Dependents' Medical Care Program

Members of the Executive Subcommittee of the Health Insurance Committee have composed the Committee on the Dependents Medical Care Program; however the Tennessee Medical Association and the Office of Dependents' Medical Care terminated their contract as of May 1, 1966 and no claims were submitted to the Committee after the termination date.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented on the report: "The Committee is encouraged to continue its efforts to develop a comprehensive non-service insurance plan with the usual and customary fee arrangement. The Committee is commended for its continuing fine work and since this represents the last year of the Committee's present Chairman, Dr. B. K. Hibbett, III, he is especially noted for his contributions during years past."

THE HOUSE accepted the report.

Report of Advisory Committee to the State Department of Public Welfare

K. M. KRESSENBERG, M.D., Chairman

Since the onset of Medicare, July 1st, the Medical Assistance to the Aged Program in Tennessee has consisted almost entirely of the welfare drug program. The Advisory Committee met with the Commissioner of Public Welfare and his associates on September 22nd, at which time a number of additional drugs were added to the MAA drug formulary. It was pointed out, however, that many drugs proposed by the Committee to the Department of Public Welfare were not subsequently added to the formulary.

The Chairman of the Advisory Committee is also a member of the Committee on Governmental Medical Services and attended a number of meetings with the Commissioner of Welfare as well as with the Governor of Tennessee and other state officials, and Blue Cross-Blue Shield officials, in relation to the many problems associated with the initiation of the Title XIX program in Tennessee. If, as recommended by the TMA, this program is placed under the Department of Public Health, the work of the Advisory Committee will consist, primarily, of consultation with the Department of Public Welfare on the drug formulary and as a standby committee to the Department of Public Welfare on any matters related to the Tennessee Medical Association.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented on the report: "Particular note is made of the fact that the MAA drug formulary is still inadequate and the Department of Public Welfare should be urged to expand this. This is the major remaining portion of the MAA program and is an exceedingly important one to beneficiaries of this program. It is noted that this Committee also recommends that Title XIX be placed under the Department of Public Health. The unanimity of this opinion deserves special note."

THE HOUSE accepted the report.

Report of Communications and Public Service Committee

O. MORSE KOCHTITZKY, M.D., Chairman

A meeting of the Committee was held to discuss several projects and programs which had come to its attention. It was the opinion of the Committee that many of the proposed projects would be of great value in strengthening and improving the public relations of TMA and its members. These programs included:

"Spotlight on Medicine" TV Series—This series was successfully televised in six different cities in Tennessee. A total of thirty-nine hours of viewing time was allotted by the six participating television stations, requiring the use of seventy-eight films on thirty diverse phases of medicine. Two hundred and twenty-two physician members of TMA, representing the co-sponsoring county medical societies, participated in the live panel portions of the series. It was reported that in many areas "Spotlight on Medicine" received such high public acclaim that the physicians and television stations participating in its presentation have expressed a desire to continue this type of program. It was the unanimous opinion of the Committee that the series should be kept in mind for use at a future time.

"The World of Medicine"—The Committee is currently implementing a public service feature entitled "The World of Medicine," through fifty weekly newspapers across the state. This is a picture panel feature designed to be both interesting and informative to the public. The Chairman urged members of the House of Delegates and/or their respective county medical societies, to contact the editor of the local newspaper and encourage the use of the feature as a public service.

"Today's Health Guide"—Another project of the Committee is the placement of a copy of AMA's 600 page publication, "Today's Health Guide" in the libraries of all accredited senior high schools in Tennessee, both public and private. The project received the endorsement of the State Board of Education and is financed on a fifty-fifty basis by the Tennessee Medical Association and the local county medical societies.

The report of the Committee emphasized the importance of the medical assistant and urged members of TMA to encourage his medical assistant or medical assistants to take active roles in the Medical Assistants Society and to urge the county medical societies to stimulate interest in the formation of a local medical assistants chapter. In a letter to county societies, the Chairman suggested that a meeting of the society be devoted to a joint meeting with the local

chapter of medical assistants to discuss with them any projects or problems affecting public relations.

As in past years, the Chairman encouraged county societies to participate in the annual observance of Community Health Week in November, since this activity offers local medical societies an excellent opportunity to improve the image of physicians, while at the same time calling attention to the fact that protecting and improving public health today is largely a community effort.

One of the most important activities under the auspices of the Public Service Committee is the operation of a Placement Service for physicians wanting to find a place to practice in Tennessee and/or a community looking for a physician, or to TMA members wishing to relocate their practice.

Attention was called to the fact that the endeavors of TMA and its committees are all forms of public relations and public service and that every project or program of the Association is aimed at aiding and/or supporting the programs for the continued or improved health of the populace and in creating better communications with both its members and the general public. In accord with these views, the Committee expressed the hope that continued support be given to all undertakings of the Association.

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commended the Committee for its efforts which have resulted in the mass media becoming much involved in presenting the activities of the medical profession. The Reference Committee further commented that members of the Medical Assistants Society are serving a good function and cooperation with this group should be the responsibility of the state and local public service committees.

THE HOUSE accepted the report.

Report of Rural Health Committee

JULIAN C. LENTZ, M.D., Chairman

The foremost activity of the Rural Health Committee is the co-sponsorship of a Rural Health Conference annually with the Tennessee Farm Bureau Federation and the University of Tennessee Agricultural Extension Service. On October 19, 1966, the fourth Rural Health Conference was held in Cleveland with a registration of 280 persons

which far exceeds the attendance at any of the first three conferences.

The Chairman of the Committee had received many letters from groups who attended the conference, complimenting the program and expressing the feeling that these conferences should be continued. It was felt that through these conferences the Committee is fulfilling its constitutional obligation, which is "to promote the improvement of health standards in rural areas in Tennessee."

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented: "The visibility of the Tennessee Medical Association has been greatly increased by the work of this Committee and it deserves the continued financial support of the Board of Trustees."

THE HOUSE accepted the report.

Standing Committees Not Reporting

1. Grievance Committee
2. Committee on Tennessee Medical Foundation

THE REFERENCE COMMITTEE on Reports of Standing Committees, B. F. Byrd, Jr., M.D., Chairman, commented: "The report of the Grievance Committee should be especially noticed by its absence. This is the third consecutive year in which there have been no appeals to the State Committee and this is contributed to the exceedingly fine action of the local medical societies in mediating all problems on the local level.

"The Committee on Tennessee Medical Foundation is in a standby status and in view of the information available, it is believed that the Committee should continue in its present standby position."

REPORTS OF SPECIAL COMMITTEES

Report of Liaison Committee to the United Mine Workers of America Welfare Fund

JOHN H. SAFFOLD, M.D., Chairman

"This Committee which now exists on a standby basis has not been called for a meeting in the past year. It is the feeling of the Chairman that the Committee should be preserved and maintained on a standby basis in the event that it may be needed."

THE HOUSE OF DELEGATES accepted the report.

Report of the Advisory Committee to the Woman's Auxiliary

ROLAND H. MYERS, M.D., Chairman

The Advisory Committee had been called upon to do very little other than investigate

the effect of contemplated activities and advise as to the most desirable procedure. This was due to the smooth and efficient operation of the Woman's Auxiliary to TMA. It was pointed out that it is the desire of the Auxiliary to work with the TMA to improve public relations, promote medical and paramedical education and research, and emphasize health education and preventive medicine.

"Did you know that approximately 48 percent of the wives of Tennessee physicians are not members of the Auxiliary? When we consider the effective work done by the 52 percent who are active, we can see that it will be greatly to the advantage of any of us whose wives are not members to urge them to join and take an active part in their local groups."

THE HOUSE OF DELEGATES accepted the report.

Report of Committee on Blood Banks and Medical Laboratories

CHAS. C. SMELTZER, M.D., Chairman

Since the action of the House of Delegates in 1965, the Committee reported that some progress had been made concerning the problem of regulating medical laboratories. In December, 1965, the Committee presented to the Board of Trustees recommendations as to the position TMA should take concerning the Department of Public Health's certification of laboratories as qualified providers of services under P.L. 89-97. These recommendations also covered the medical practice act and the training of laboratory personnel. The Committee also recommended that an educational program for the TMA membership should be undertaken and that consideration should be given to the publication of a roster of physician supervised laboratories in the state.

The Chairman stated that such a roster was being formulated and upon completion, would be made available to the membership through the TMA Journal and in a folder publication. He commended the county society secretaries, the Tennessee Society of Pathologists, and the Tennessee Department of Public Health for their cooperation in providing the Committee with the necessary data to complete this project.

Supplementary Report of the Committee on Blood Banks and Medical Laboratories

"The Committee on Blood Banks and Medical Laboratories requests the Tennessee Medical Association to sponsor legislation defining transfusion of human blood, blood derivatives and transplantation of human tissues and organs clarifying the idea that the use of these materials represents a service and that they in no way comprise a commodity. Other jurisdictions have taken this action, spurred by court decisions supporting a contrary view and invoking the doctrine of implied warranty. The Committee believes this matter to be urgent and is requesting the cooperation of the House of Delegates and the Legislative Committee of TMA in producing, sponsoring and introducing such a bill in the 1967 Tennessee General Assembly."

THE REFERENCE COMMITTEE on Reports of Special Committees, R. A. Calandrucio, M.D., Chairman, commended to the House the efforts of the Committee on Blood Banks and Medical Laboratories to keep TMA aware of the continuing problem in laboratory medicine and the need for support of physician supervision of laboratory activities, particularly in the publishing of the roster.

THE HOUSE accepted the report of the Committee on Blood Banks and Medical Laboratories and adopted the supplemental report of the Committee.

Report of the Committee on Mental Health

FRANK H. LUTON, M.D., Chairman

"The Committee has, since its inception about fourteen years ago, tried to constantly re-evaluate its purposes and goals and in so doing bring to the Medical Association a picture of the changing concepts in psychiatry and mental health. This period has been marked by many changes in medicine and of great significance are those that have occurred in this aspect of medicine."

One of the prime goals of the Committee has been to initiate and develop postgraduate programs, and with this in mind, a Congress on Mental Illness and Health was convened in 1963 and another in October, 1966. Both of these were reported to be successful in attendance, interest, character and appropriateness of program.

One meeting of the Committee had been held, in addition to the great involvement of all members in the planning and execution of the Mental Health Congress. At this meeting, questions of proposed legislation to be supported by the Department of Mental Health were discussed and in general the Committee was in favor of most of the proposals. These were: (1) Acts relating to the Interstate Compact; (2) Mechanisms by which an uncooperative and psychotic pa-

tient can be brought to a psychiatric facility against his will; (3) An act that will provide for court supervision over a patient who has been released from charges for crimes committed at a time when the patient was incompetent.

The Committee also considered a proposal that a steering committee be developed for the purpose of organizing programs of postgraduate education in psychiatry for non-psychiatrically trained physicians. The steering committee would be composed of representatives of the State Medical Association, the Tennessee Academy of General Practice, university departments of psychiatry, and the Tennessee District Branch, A.P.A. It was felt that it would be helpful in future planning for such courses to make a survey of physicians in Tennessee to determine the interest of physicians in such programs, types of courses needed, curriculum, appropriate places for course teaching, and teaching methods. The Committee supported this activity and presented it to the Board of Trustees. The Board directed the Committee on Mental Health to conduct the survey and these questionnaires have been distributed.

Another activity of the Committee has been the development of a series of television programs that originated from the Second Mental Health Congress. Nine topics were selected on the basis of general interest to professional and lay viewers and have been produced by the local educational television network and sponsored by the TMA and the Nashville Academy of Medicine.

The Committee requested support by the Tennessee Medical Association of the following recommendations: (1) A steering Committee be formed as described for the planning of postgraduate courses in psychiatry and mental health for interested physicians throughout the state, and (2) Authorization for a workshop for members of the mental health team with joint sponsorship by other appropriate organizations.

THE REFERENCE COMMITTEE on Reports of Special Committees, R. A. Calandrucchio, M.D., Chairman, recommended that the House recognize the efforts of Dr. Luton in behalf of mental health and urge that the incoming President of the Tennessee Medical Association indicate the method of implementing the recommendations of the Committee.

THE HOUSE accepted the report.

Report of Health Project Contest Committee

LAWRENCE L. COHEN, M.D., Chairman

The 14th annual Health Project Contest, sponsored by TMA and the Woman's Auxiliary, received forty-three excellent entries from schools across Tennessee, covering more than sixteen varied health subjects: The awards totaling \$1,250 were presented to five winners:

First Place: Cleveland Day School, Senior Class, Cleveland "Alcohol and Society: Four Phases for Study"—\$500

Second Place: Snowden Junior High School, Ninth Grade Science Class, Memphis "Effects of Music on Plants and Humans"—\$300

Third Place: Elbert S. Long Junior High School, Ninth Grade General Science Class, Chattanooga, "Water Pollution in South Chickamauga Creek"—\$200

Fourth Place: Brainerd High School, Science Club and Advanced Chemistry Class, Chattanooga, "Water Pollution in the Chattanooga-Brainerd Area"—\$150

Fifth Place: Fall Branch High School, Eleventh Grade Health Classes, Fall Branch, "Rolling the Ball Toward Physical Fitness"—\$100

(Fifth Place Award is given by the Woman's Auxiliary to TMA)

The Chairman expressed appreciation to the Tennessee Department of Education for their continued cooperation with the TMA and the Auxiliary in promoting this statewide health project contest. He stated that the entries reflected concentration by the students and their sponsors on the subjects and evidenced the many hours of work and study involved. Ingenuity and originality was evident in a majority of the entries and should aid in accomplishing the objectives of the contest—that of teaching the youth of today the value of good health through a practical activity and also to stimulate interest in a career in the health field.

THE HOUSE OF DELEGATES accepted the report.

Report of the Tennessee Committee for the American Medical Education and Research Foundation

THOMAS J. ELLIS, M.D., Chairman

The American Medical Association Education and Research Foundation has six specific programs in operation: Funds for Medical Schools; Medical Education Loan Guarantee Program; Categorical Research Grants; Fellowship Program in Medical

Journalism; Institute for Biomedical Research; and the Committee for Research on Tobacco and Health.

Total contributions in 1966 nationally were \$3,832,000 with \$652,850 of that amount contributed by physicians. In Tennessee, AMA-ERF granted 476 loans to medical students, interns and residents totaling \$570,000. Nationally, there were 6,750 loans granted which totaled \$7,560,000. The three medical schools in Tennessee received a total of \$39,144.22. Allocations for the three schools were: Vanderbilt University School of Medicine, \$17,118.28; University of Tennessee College of Medicine, \$15,754.56; Meharry Medical College, \$6,269.38.

The Chairman congratulated the Woman's Auxiliary for their continued work for AMA-ERF, earning national recognition for their efforts. Their total contribution for the year was \$21,881 exceeding the record high in 1965.

The Committee strongly urged each TMA member to support the AMA-ERF with a contribution in 1967.

THE HOUSE OF DELEGATES accepted the report.

Report of Committee on Sight Conservation

I. LEE ARNOLD, M.D., Chairman

I. Eye Safety Bill—An Act to require all persons in attendance at certain courses and laboratories in schools, colleges or universities to wear eye protective devices of industrial quality.

SECTION 1. Be it enacted by the General Assembly of the State of Tennessee, that all students, teachers and others in attendance at the following courses or laboratories in schools, colleges or universities shall wear eye protective devices of industrial quality:

(A) Vocational or industrial arts courses or laboratories using or concerned with: Hot molten metals; milling, sawing, turning, shaping, cutting, grinding, or stamping of any solid materials; heat treatment, tempering, or kiln firing of any metal or other materials; gas or electric arc welding; repair or servicing of any vehicle; caustic or explosive materials;

(B) Chemical or combined chemical-physical laboratories using caustic or explosive chemical or hot liquids or solids.

2. Be it further enacted, that eye protective devices shall be considered of "industrial quality" when they meet the standards of the American Standards Association Safety Code for Head, Eye, and Respiratory Protection promulgated by the

American Standards Association, Inc., or other standards generally recognized by industry.

3. Be it further enacted, that this Act shall take effect on July 1, 1967, the public welfare requiring it.

II. Glaucoma—The Tennessee Academy of Ophthalmology and Otolaryngology mailed a letter on October 28, 1966 to the Tennessee Medical Association stating that glaucoma is a disease in the same sense that diabetes and cancer are diseases. The determination of the presence or absence of glaucoma requires medical diagnostic tests and judgment based on medical knowledge, as do other diseases. Anyone may suspect the presence of glaucoma but to offer a professional opinion as to the presence or absence of glaucoma, or any other disease, falls under the category of the practice of medicine.

The committee recommends that the internists, general practitioners and other physicians in the State of Tennessee seeing a large number of elderly patients be instructed to secure a suitable Schiotz or Berens Tolman tonometer and record the intraocular pressure on all patients over forty. Patients with a pressure reading greater than a level, such as 25 millimeters of mercury, should be referred to Ophthalmologists for further study.

III. Autopsy Permit to Allow Enucleation of the Eyes—The Committee recommends that suitable words be added to the autopsy permits currently used in the State making it clear from a legal standpoint as to the permission to enucleate the eyes in an autopsy. A statement such as "including the removal of both eyes" should be added to the portion of the autopsy permit which refers to the head.

THE REFERENCE COMMITTEE on Reports of Special Committees, R. A. Calandrucchio, M.D., Chairman, made the following recommendations:

(1) That the report begin with the sentence, "The Ophthalmology Legislative Committee formulated a bill that is now in the State Legislature. The bill is as follows:"

(2) That the correction be made following Roman Numeral I to read: "School Eye Safety Bill."

(3) That the second paragraph under Roman Numeral II be deleted and substitute: "that the physicians in the State of Tennessee include in the routine examination of patients over 40 years of age the determination of intraocular pressures."

(4) That the paragraph following Roman Numeral III be deleted and substitute: "The Committee would like to bring to the attention of the members of the TMA that suitable supplementary autopsy permits are available to obtain permission to enucleate the eyes in an autopsy. To use the cornea for transplants it is necessary that this be done four hours or less after demise of the patient."

THE HOUSE adopted the recommendations of the Reference Committee and accepted the report as amended.

Report of Interprofessional Liaison Committee

WM. H. EDWARDS, M.D., Chairman

Following a suggestion of the Executive Secretary of the Tennessee Pharmaceutical

Association, the Interprofessional Liaison Committee met with a special Interprofessional Liaison Committee of the Pharmaceutical Association to explore the feasibility of Tennessee's physicians and pharmacists issuing a joint code of understanding.

Eleven states have such codes between the two professions and other states are attempting to develop codes. It was felt by the Pharmaceutical Association that such a code of mutual understanding might go a long way toward forestalling the further intervention of third parties in the affairs of the two professions.

The formats of codes as used by other states were reviewed by the two committees and areas of mutual concern were considered at length. These included dispensing, labeling and refilling of prescriptions, consultations, ethics, procedure of handling complaints, imprinted prescription blanks, and the implication of the Hart Bill, S-2568, as it applies to medical and pharmaceutical problems. A code which was felt to cover all areas and was acceptable to both Committees was developed and included as a part of the report.

The Committee had also considered the feasibility of a joint medical-legal symposium to be held at the TMA meeting in 1968. Several such symposia from other states had been reviewed and it was felt that such an inclusion in the 1968 meeting might be worthy of consideration. It was also felt by the Committee that the medical-legal code which was adopted in 1957 by the Medical Association needed to be reviewed and updated and the Chairman stated that these possibilities would be explored in the coming year.

THE HOUSE OF DELEGATES accepted the report.

Report of Committee on Youth and Education

BEN D. HALL, M.D., Chairman

"During the year 1966 the Committee on Youth and Education has had no occasion or need to meet. This is basically a standby committee for the purpose of acting upon any matters referred to it. Requests for action during the past year have been minimal and of such nature as not to require a formal meeting. We would recommend that this Committee be continued on a standby basis."

THE REFERENCE COMMITTEE on Reports of Special Committees, R. A. Calandruccio, M.D., Chairman, recommended that the Committee on Youth and Education become active in the field of athletic injuries and evaluation of physical education exercise programs.

THE HOUSE accepted the report and adopted the recommendation of the Reference Committee.

Report of Committee on Medicine and Religion

CHARLES C. STAUFFER, M.D., Chairman

The Chairman, having served his first term in this capacity, stated that activities of the Committee had been limited in 1966, however two conferences held during the past three months had helped to clarify this difficulty and it was hoped that considerably more progress could be made in future years. It was his opinion that the entire program could be more successful with improved communication to the various local medical societies and pointed out that an effort along these lines was being made at the current meeting through an information booth, prepared by, and in part, staffed by the Committee on Medicine and Religion of the American Medical Association. He stated that information relative to the purpose of the Committee could be obtained at the booth by interested members of local committees which are already functioning, as well as those who might not be familiar with it, thereby enlisting their support.

In February 1967, the state committee chairmen from the entire country were invited by the AMA to Chicago for a two-day conference of information and exchange of ideas. The country-wide interest was demonstrated by the attendance of 45 state chairmen, including Tennessee. Since that meeting, contacts with local members of the clergy had indicated enthusiasm and interest.

The report called attention to an outstanding meeting held by the Memphis and Shelby County Medical Society during the year and the contribution to this meeting made by the Rev. Dr. Paul B. McCleave, Director of the Department on Medicine and Religion of the AMA.

Dr. Stauffer concluded his report with commendation to the former Chairman of the Committee and reiterated his recom-

mentation that the work of the Committee be pursued as aggressively as possible.

THE HOUSE accepted the report.

Report of Committee on Rehabilitation

JAS. C. GARDNER, M.D., Chairman

Members of the TMA Committee on Rehabilitation are also members of the Professional Advisory Committee of the State Division of Vocational Rehabilitation and attended a meeting of the Division in August, 1966. In this meeting, the operations of the Division for the fiscal year 1965-66 were outlined in detail. For information, a copy of the Division's Annual Report had been furnished to members of the House of Delegates.

The Chairman called attention to an increase in the number of rehabilitated people to employment over previous years; a decrease in the average cost per case; and pointed out that the over-all expenditures for the Division in 1965-66 had increased almost a million dollars over 1964-65 but at the same time, Division personnel (including professional and nonprofessional) had increased from 222 to 267 during this period. He also reported on new programs of the Division which had been initiated during the year. These included the Jordonia program for juvenile offenders; a statewide system of occupational training centers for the disabled; and a cooperative program between the Division of Vocational Rehabilitation and Special Education, whereby students enrolled in special education classes benefit from the counseling and other rehabilitation services of the Division.

"There are many, many other things going on in rehabilitation in Tennessee, but time will not allow us to talk about all of these. There are still a lot of stones to be turned and even though the over-all budget remains small in comparison to the great problem facing the Division in rehabilitating people, the agency continues to get maximum benefit for the amount of money it has to spend. The Committee on Rehabilitation continues to find the relationship between the State Division and the medical profession to be good and the rehabilitation program to be doing an excellent job in its bid to rehabilitate the state's disabled."

The Chairman of the Committee on Re-

habilitation represented TMA at the Rehabilitation Conference of the AMA in Chicago, September 8-9 and a detailed report of the conference had been furnished to the Board of Trustees.

THE HOUSE OF DELEGATES accepted the report.

Report of the Committee on Governmental Medical Services

TOM E. NESBITT, M.D., Chairman

With the impending implementation of Title XVIII of Public Law 89-97 to begin in July, 1966, followed shortly in January, 1967 by the addition of extended care facility benefits to the over-65 citizens and the anticipated implementation of Title XIX by the State of Tennessee, as well as the early planning phases of Regional Medical Center Complexes in Tennessee, the Board of Trustees in April, 1966, established the Committee on Governmental Medical Services to coordinate all facets of state and federal health care programs.

Since its organization, the Committee had been actively concerned with many of the problems encountered in the early administration of the Medicare program. Numerous meetings were held with State officials and other public officials concerning the role of the State in handling the fiscal intermediary problems of the payments for welfare recipients under Part B of Title XVIII, P.L. 89-97. The Committee consulted with the advisory firm designated by the State of Tennessee for advice on implementation of Title XIX, and many of TMA's views relative to this legislation had been expressed to the appropriate authorities on several occasions. Conferences were held with representatives of the Tennessee Hospital Association relative to problem areas that have arisen under Title XVIII and the proposed Title XIX. Efforts were made to seek a clearer understanding and greater participation in the planning phases of the Regional Medical Center to be established in Middle Tennessee.

With the proposed implementation of the Title XIX program and the expansion of the regional medical center complexes, it is anticipated that the efforts and activities of

the Committee will continue to be numerous and extensive in 1967.

THE HOUSE OF DELEGATES accepted the report.

Report of Utilization Review Committee

W. O. VAUGHAN, M.D., Chairman

The Utilization Review Committee on the state level was primarily established to serve as an advisory committee in forming and furnishing the necessary materials and information to local hospital staffs to establish Utilization Review Committees as required under the Medicare program.

Prior to July 1, 1966, material was prepared in the headquarters with the approval of the Utilization Committee for forwarding to the President or the Chief of Staff of the general hospitals in the state. Such materials as hospital utilization—review mechanisms; a handbook for the medical staffs of hospitals pertaining to the organization of utilization committees; general principles of medical staff organization and the guidelines for establishing medical society review committees were prepared and sent to the hospital staff heads.

It was pointed out in the report that utilization review is conducted at the local level by the appropriate committee on each hospital staff, and the state committee is available to assist in the guidance, counseling and furnishing of information as requested.

THE HOUSE OF DELEGATES accepted the report.

Report of State Claims Review Committee

B. K. HIBBETT, III, M.D., Chairman

"Forty-four of the forty-nine County Medical Societies have established Claims Review Committees to review any Medicare claims that are contested from the respective counties. We have a State Claims Review Committee that serves in an advisory capacity and also functions for those counties that do not have a committee. It also acts as an arbitrator between the County Medical Societies and the fiscal intermediary. We have had no claims submitted to the State Committee for their review as of this date."

THE HOUSE OF DELEGATES accepted the report.

Special Committees Not Reporting

1. Committee on Disaster Medical Care
2. Committee on Occupational Health

THE REFERENCE COMMITTEE on Reports of Special Committees, R. A. Calandrucchio, M.D., Chairman, suggested that the Committee on Disaster Medical Care inform the House of Delegates in 1968 as to what is a state disaster medical plan; and if there is no such plan, to formulate such.

THE HOUSE accepted the report and the suggestion of the Reference Committee.

SPECIAL REPORTS

Report of Woman's Auxiliary to Tennessee Medical Association

MRS. HAROLD BOYD, President

Activities and accomplishments of the Woman's Auxiliary to TMA were presented by Mrs. Harold B. Boyd, President. These included:

—Sponsorship of a Political Action Work Shop for members of the state board and local legislative chairmen, planned and executed by the Southern Regional Office of AMPAC, proved to be an effective stimulant and guide. Auxiliary members worked more than 3,500 reported hours to encourage voter registration and to publicize the qualifications of conservative candidates for state and national legislatures.

—Continued and increased efforts to raise funds for the AMA-ERF. Contributions in 1966 totaled \$21,881.11.

—Enthusiastically supported the International Health Project wherein many of the basic needs of people in other countries are provided.

—Health Career Recruitment: Many Auxiliaries have kept a supply of current information in school libraries and in the hands of school counselors; sponsored career clubs; conducted field trips to hospitals, laboratories and medical schools; and held training courses of Volunteens and Candy Strippers. In 1966, the Auxiliary raised \$2,526 for loans and \$2,100 for scholarships.

—Promoted and stimulated interest in the annual Health Project Contest. In addition to the TMA and state auxiliary prizes, nine local medical societies and/or their auxiliaries give awards in the amount of \$670.00. One Auxiliary presents a certificate to each group which submits a project.

—Assisted in organizing the successful Mental Health Congress held in Nashville in October.

—Reported 22,413 hours in the field of community service. Shelby County Auxiliary members staffed the clinic at Juvenile Court and spearheaded the establishment of prayer rooms, story hours, craft, and sewing and singing periods. They also provided help at the Cancer Clinic three mornings a week throughout the year. Senior Citizens Clubs, training of teenagers as reliable baby-sitters or volunteers in nursing situations, and the lending of sick-room equipment to 90 indigent patients are samples of the diverse ways in which the Auxiliary members have served their communities.

—Safety: Through the efforts of the Knox County Auxiliary it became mandatory that motorcyclists wear helmets. Many auxiliary members participated in pre-school eye examinations. Measles immunization was another occasion for full auxiliary participation. Courses on water safety, medical self-help, home nursing, and first aid were taken as well as taught.

“Presently, our membership stands at 1,568, which is 52.8 percent of that of the Tennessee Medical Association. This is one of the lowest percentages in the twelve Southern states. The medical auxiliary offers every doctor's wife an opportunity to serve her community more effectively because she has joined hands with others of like purposes.”

THE HOUSE OF DELEGATES accepted the report.

Report of AMA Delegation

DAUGH W. SMITH, M.D.

The report for 1966 dealt with issues brought before two sessions of the House which were of the greatest concern to physicians. A summary of the proceedings of the House of Delegates is published following each meeting in the JAMA, AMA NEWS, and abstracted in the TMA Journal.

Annual Session—June 26-30: Federal health legislation, physicians' billing procedures, medical ethics, racial discrimination and health manpower were among the major subjects acted upon by the AMA House in Chicago.

—The House strongly supported the general concept of direct billing under Medicare and of individual responsibility—recommended that since there is a wide latitude available to the states in establishing administrative procedures under Title XIX, each state medical association should work early and diligently in its own state so that any plan or law adopted in its state for approval under Title XIX would include authorization for direct billing.

—Took action involving reimbursement principles affecting hospital-based specialists but also of significance to all physicians. The action stated: “The principles of medical ethics declare that a physician shall not dispose of his services to a third party or (lay) organization and Title XIX of Public Law 89-97, recognizes the principle of the separation of professional and hospital costs for services rendered by hospital-based physicians.” The action further stated that since separate billing by the physician for his professional services is a preferred ethical practice, it shall be deemed unethical for a physician to displace a hospital-based physician who is attempting to practice

separate billing when said displacement is primarily designed to circumvent separate billing.

—Reaffirmed its opposition to the compulsory assessment of hospital staff members in order to raise funds for hospital construction—reconsidered its action in defining usual, customary and reasonable fees and referred the matter back to the Council on Medical Service for further study—strongly endorsed the AMA volunteer physicians for Viet Nam program and urged the entire profession to support it by word and deed—adopted a resolution urging state medical associations to oppose as detrimental to the public interest, any proposed legislation that would authorize optometrists to engage in the diagnosis or treatment of disease or injury of the eye.

Clinical Session—November 27-30: In the 20th AMA Clinical Convention in Las Vegas, the House of Delegates endorsed the recommendations of the Ad Hoc Committee on Education for Family Practice and authorized the Council on Medical Education to develop and initiate plans for their implementation—adopted a resolution urging that the AMA advise the Department of HEW that the present requirements for certification and recertification have proven highly objectionable, unnecessary, and do not contribute to the quality of medical care—adopted a recommendation that AMA endeavor to bring about repeal of those portions of P.L. 89-97 in which the requirement for physician certification of medical necessity appears.

—Adopted a report reaffirming the position of the AMA regarding the prescribing of drugs. The report stated: “The policy of the American Medical Association is that physicians should be free to prescribe drugs generically or by brand name for all of their patients, whether they are paying, medicare, or indigent patients—the primary consideration being the best interest of the patient.”

—Adopted a report of the Judicial Council, as follows: “Medical considerations, not cost, must be paramount when the physician chooses a laboratory. The physician who disregards quality as the primary criterion or who chooses a laboratory because it provides him with low cost laboratory services on which he charges the patient a profit, is derelict in not acting in the best interests of his patients. However, if reliable quality laboratory services are available at lower cost, the patient should have the benefit of the savings.”

—Adopted an eight-point statement regarding payment for professional services—Instructed AMA members of the Joint Commission on Accreditation of Hospitals to express grave concern regarding the accreditation of hospitals in which laboratories are directed by non-physicians or physicians not adequately qualified in laboratory medicine—Recommended that state medical societies seek the passage of state legislation which would provide a physician who serves on a utilization review committee immunity from litigation arising from the activities of the committee—Recommended that each hospital should have at

least one voting doctor of medicine member on its Governing Board who, preferably, should either be appointed or elected by the hospital medical staff.

THE HOUSE OF DELEGATES accepted the report.

Report of Tennessee Medical Association Student Education Fund

JOHN H. BURKHART, M.D., Chairman

"The Tennessee Medical Association Student Education Fund met during the 1966 Annual Meeting in Gatlinburg at a time when its resources were less than \$2,000 and, for this and other reasons, it did not approve any new loans. The Board of Trustees of TMA, on the last day of the meeting, approved a loan of \$17,000 to the Fund so that its assets at this point are con-

siderably more than they were a year ago. However, the Board of Directors of TMA-SEF decided to not meet again until during the Annual Meeting of 1967 at which time it will review its present loans outstanding and consider applications for new loans.

"It is the feeling of the Board of Directors that careful scrutiny should be given to the applications received in order that the money available through the Fund shall be put to its best use. For a financial report on the TMA-SEF, anyone who desires this is referred to the report made to the House of Delegates last year or to request that a copy be made available from the Treasurer or the Chairman."

THE HOUSE OF DELEGATES accepted the report.

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Abstract of Minutes of the Meeting of the Board of Trustees, Tennessee Medical Association— Sheraton-Peabody Hotel—Memphis, Tennessee April 16, 1967

The Board of Trustees of the Tennessee Medical Association convened for the regular second quarter meeting, following the TMA Annual Meeting, on Sunday, April 16, 1967.

Members of the Board present were:

Francis H. Cole, Memphis
Robert L. Chalfant, Nashville
Thomas J. Ellis, Johnson City
G. Baker Hubbard, Jackson
K. M. Kressenberg, Pulaski
O. M. McCallum, Henderson
Tom E. Nesbitt, Nashville
Edward T. Newell, Jr., Chattanooga
John H. Saffold, Knoxville
Chas. A. Trahern, Clarksville

Dr. Francis H. Cole, Memphis, was named Chairman of the Board; Dr. O. M. McCallum, Henderson, Vice-Chairman; and Dr. Robert L. Chalfant, Nashville, Treasurer.

Three Trustees were reappointed as Division Coordinators. They are: Dr. Thomas J. Ellis—Division on Scientific Advancement; Dr. Chas. A. Trahern—Division on Legislative Affairs; Dr. O. M. McCallum—Division on Governmental Medical Affairs. Dr. Robert L. Chalfant was appointed coordinator of the Division on Communications and Public Service; and Dr. John H. Saffold was named coordinator of the Division on Socio-Economics, Insurance and Medical Service.

Members nominated and elected to compose the committees of the Board of Trustees were: *Executive Committee*—Drs. Francis H. Cole, Robert L. Chalfant, G. Baker Hubbard, K. M. Kressenberg and Edward T. Newell, Jr.; *Finance Committee*—Drs. Chalfant, Newell and Hubbard; *Long-Range Planning Committee*—Drs.

Hubbard, Kressenberg, and Tom E. Nesbitt; *Advisory Committee to OASI*—Dr. James C. Gardner, Nashville; Dr. Harmon L. Monroe, Erwin; and Dr. R. B. Wood, Knoxville. *Publications Committee*—Dr. Addison B. Scoville, Jr., Nashville; Dr. James M. Hudgins, Nashville; Dr. James A. Robertson, Memphis; Dr. R. H. Kampmeier, Nashville, ex-officio; and Mr. J. E. Ballentine, Executive Director, TMA, ex-officio.

As directed in Resolution No. 17-67, the Board appointed a committee, composed of representatives of the Tennessee State Obstetrical and Gynecological Society and representatives of the Tennessee Academy of General Practice, to study possible revisions of the Tennessee Criminal Abortion Statute. The following were appointed to the Study Committee: Dr. Edwin L. Williams, Nashville; Dr. Martin Davis, Knoxville; Dr. Robert G. Demos, Chattanooga; Dr. John H. Saffold, Knoxville; Dr. Irving R. Hillard, Nashville; Dr. Nat E. Hyder, Jr., Erwin; and Dr. Stewart A. Fish, Memphis.

(1) Completed appointments to the Standing and Special Committees of the Association for 1966-67.

(2) Determined that the Board's Liaison Committee to Medical Schools in Tennessee should be renamed the "Committee on Regional Medical Centers and Liaison to Medical Schools" and established as a special Committee of the Association, reporting annually to the House of Delegates. Three physicians from each grand division of the state will be appointed to the Committee and in the interim between sessions of the House of Delegates, the Committee will report on its activities to the Board of Trustees.

(3) Heard remarks by Dr. Hoyt Gardner, Secretary-Treasurer of the American Medical Political Action Committee, con-

cerning the operation and activities of AMPAC.

(4) Reviewed a recommendation by the immediate past-chairman of Independent Medicine's Political Action Committee—Tennessee, that a member of the TMA staff be designated to perform the administrative functions of IMPACT and considered a proposed budget for carrying out a more effective educational program over the state.

(5) Considered and approved the first quarter financial statement for 1967.

(6) Authorized the President to select representatives to attend a Conference on Nursing and the Eleventh National Conference on Physicians, sponsored by the AMA in October.

(7) Heard a report from the Chairman of the Committee on Exhibits and approved a suggestion that the Committee be invited to meet with the Committee on Scientific Work in Developing plans for the 1968 meeting.

(8) Directed the Chairman of the Board to write a letter to the Chairman of the TMA Council expressing the Board's interest and concern with the chiropractic situation as it exists in Tennessee and requesting the Council to study the matter and take appropriate action.

(9) Determined that the Vice-Speaker of the House of Delegates and the Delegates to the American Medical Association should be invited to attend all meetings of the Board of Trustees.

(10) Approved a recommendation that the Board of Trustees write a letter to Dr. John C. Burch, immediate past-chairman, expressing commendation and appreciation for his dedicated service to the Board during his term of office.

FRANCIS H. COLE, M.D., Chairman

J. E. BALLENTINE, Executive Director

Abstract of Minutes of Council Meetings

Tennessee Medical Association

Sheraton-Peabody Hotel—Memphis—April 13-16, 1967

The Council of the Tennessee Medical Association convened, April 13, 1967 in the Sheraton-Peabody Hotel, Memphis, with Dr. John H. Saffold, Acting Chairman, presiding. The following members of the Council were present: Dr. J. J. Range, First District; Dr. Edward G. Johnson, Third District; Dr. John Derryberry, Fifth District; Dr. Harry T. Moore, Jr., Sixth District; Dr. Charles Hickman, Eighth District; Dr. Byron O. Garner, Ninth District; and Dr. B. G. Mitchell, Tenth District.

The Council discussed the use and administration of Part B, Medicare funds in medical schools and particularly in teaching activities as it relates to the Attending Physicians Association, Inc. No action was taken since the entire matter is awaiting a decision by the Internal Revenue Service as to application.

Reports from physicians relative to radiologists sending x-ray reports to osteopaths and chiropractors who are not approved by the local medical society as practicing a scientific medicine, were reviewed. The conclusion of the Council followed a recommendation by the TMA Attorney to the end that an ethical physician could send a report to the patient, but if the osteopath or chiropractor was not judged as practicing a scientific medicine, that the report should not be sent or consultation held with him.

Discussion was held concerning cardiologists and their reading of EKG's. The Council felt that no action should be taken, but that cardiologists should be considered in the same category as other hospital-based specialists (radiologists, pathologists, etc.) and that they should also send a separate bill to their patients as do the other hospital-based specialists.

There was further discussion relative to radiologists and pathologists on the matter of separate billing. The Council believed that progress had been made and urged that efforts be continued on the level as presently being used to reach the desired end of separate billing for all physicians without further and undue enforcement.

Meeting of the Council April 16, 1967

An interim meeting of the Council was held on April 16, 1967 with Dr. John H. Saffold serving as interim chairman for the purpose of election of new officers. Dr. J. J. Range, Johnson City, was elected Chairman and Dr. B. G. Mitchell, Memphis, was named Secretary.

Councilors present were: Dr. J. J. Range, First District; Dr. Edward G. Johnson, Third District; Dr. Claude M. Williams, Fourth District; Dr. John Derryberry, Fifth District; Dr. B. K. Hibbett, III, Sixth District; Dr. Carson E. Taylor, Seventh District; Dr. Charles Hickman, Eighth District; Dr. Byron O. Garner, Ninth District; and Dr. B. G. Mitchell, Tenth District.

A general discussion of the corporate practice of medicine as it relates to radiologists and pathologists was held. The new members of the Council were made acquainted with this problem and Dr. Range was directed to furnish them with all available information on this matter.

It was concluded that a regular meeting of the Council would be held in Nashville within one month.

B. G. MITCHELL, M.D.
Secretary of the Council

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

ANNUAL MEETING HIGHLIGHTS

1967 Annual Meeting Total Attendance—852

● Total physician registration at the annual meeting in Memphis, April 13-15, resulted in 585 doctors in attendance. 504 TMA members, 49 guest physicians, 29 residents and 3 interns for a total of 585. There were 8 medical students, 122 exhibitors, 137 ladies registered from the Woman's Auxiliary for a total of 852.

Dr. K. M. Kressenberg Assumes Presidency

● At the President's Banquet, Dr. K. M. Kressenberg, Pulaski, assumed the presidency, succeeding Dr. G. Baker Hubbard, Jackson.

Dr. Edward T. Newell, Jr.—President-Elect

● Named to be President-Elect and lead the TMA in 1968 is Dr. Edward T. Newell, Jr., Chattanooga, who will succeed to the Presidency during the 1968 meeting in Chattanooga.

Board of Trustees

● Elected Chairman of the Board of Trustees was Dr. Francis H. Cole, Memphis. Dr. O. M. McCallum, Henderson, was named Vice-Chairman. Dr. Robert L. Chalfant, Nashville, a newly elected trustee, was named Treasurer. Dr. James N. Thomasson, was elected Secretary for a one-year term. In addition, Dr. John H. Saffold, Knoxville, was elected to fill the unexpired term of Dr. Newell. Other members continuing on the Board included Dr. Thomas J. Ellis, Johnson City; Dr. G. Baker Hubbard, Jackson; Dr. K. M. Kressenberg, Dr. Tom E. Nesbitt, Nashville, Speaker of the House of Delegates; Dr. Charles A. Trahern, Clarksville, and Dr. Newell.

Speaker and Vice-Speaker of the House of Delegates

● Dr. Tom E. Nesbitt, Nashville, was re-elected Speaker of the House of Delegates, and Dr. R. L. DeSaussure, Memphis, was re-elected Vice-Speaker.

Vice-Presidents

● Elected for the 1967-68 year as Vice-Presidents were: Dr. Julian Lentz, Maryville, East Tennessee; Dr. Parker Elrod, Centerville, Middle Tennessee; and Dr. Howard Ragsdale, Ripley, West Tennessee.

Elected Members of the Council

● Newly elected members of the Council were: Dr. J. Marsh Frere, Jr., Knoxville, Second District; Dr. Claude M. Williams, Cookeville, Fourth District; Dr. B. K. Hibbett, III, Nashville, Sixth District; Dr. Charles N. Hickman, Bells, re-elected from the Eighth District; and Dr. B. G. Mitchell, Memphis, re-elected from the Tenth District. Chairman of the Council for 1967-68 is Dr. J. J. Range of Johnson City. Other members continuing to serve for next year will be: Dr. Edward G. Johnson, Chattanooga, Third District; Dr. John Derryberry, Shelbyville, Fifth District; Dr. Carson E. Taylor, Lawrenceburg, Seventh District; and Dr. Byron O. Garner, Union City, Ninth District.

AMA Delegates and Alternates

● Dr. W. O. Vaughan, Nashville, was elected AMA delegate from Middle Tennessee for a two-year term, beginning January 1, 1968. Dr. William F. Meacham, Nashville, was elected for a similar term as alternate delegate. Dr. Bland W. Cannon, Memphis, was re-elected AMA Delegate for a new two-year term beginning January 1, 1968, representing West Tennessee. His alternate for a similar term was Dr. Julian K. Welch, Jr., Brownsville, re-elected. TMA is now eligible

for a fourth TMA delegate, and in a run-off election, Dr. Tom E. Nesbitt, Nashville, was elected an AMA delegate for 1967 and 1968 (two-year term) and Dr. A. Roy Tyrer, Memphis, was elected alternate for the similar term.

**Outstanding Physician
of the Year—Dr. R.
Eustace Semmes,
Memphis**

● Dr. R. Eustace Semmes, Memphis, was the recipient of the award made to the Outstanding Physician of the Year. He was introduced at the President's Banquet on April 15th.

**Scientific
Presentations**

● The Tennessee Medical Association presented two days of general scientific programs. On April 14th and 15th, panel discussions with outstanding guest speakers were presented. In addition, special presentations were made by Dr. Bland W. Cannon, Memphis, and Dr. Charles L. Hudson, Cleveland, Ohio, President of the American Medical Association.

**Highlights of House
of Delegates Actions**

● Major actions of interest occurring in the House of Delegates are shown in these resolutions adopted: Discontinued the policy of making nominations to the Tennessee Hospital Service Association Board of Directors; Adopted action requiring a study committee to consider the permanent method of selecting TMA's fourth delegate to AMA; Reiterated TMA's policy and definition of usual and customary fees; Adopted action reiterating TMA policy on physician billing procedure; Set forth TMA policy on Title XIX under P.L. 89-97 that calls for administration of any Title XIX program to be under the direction of the Health Department and headed by a doctor of medicine; Physicians were urged not to accept an assignment from government agencies or authorized carriers; Defined medical indigency; Opposed the necessity for certification and recertification of patients under Public Law 89-97; Recommended that all physicians bill their patients directly; Recommended physician representation on governing boards of hospitals. County societies were urged to seek the cooperation of their respective hospitals to implement this policy; Stated preference for one fiscal intermediary to serve for payments to physicians on all programs under P.L. 89-97; Urged physicians to take an active role in areawide planning; Considered a resolution on labeling of prescriptions, but referred it to the Committee on Interprofessional Liaison; Commended TV stations for televising the series "Spotlight on Medicine"; Objected to compulsory prescribing of drugs by generic names; Took action on two resolutions dealing with supervision of facilities in care for the mentally retarded; Established a study committee to revise the criminal abortion statute in Tennessee; Endorsed Alvin J. Ingram, M.D., Memphis, for a second term as a member of the AMA Board of Trustees; Urged the retention of career physicians in the armed forces; Approved a resolution pertaining to the three-day hospitalization provisions under P.L. 89-97; Acted to support the University of Tennessee College of Medicine, and diploma schools of nursing; Approved political and socio-economic education in undergraduate and postgraduate medical education.

**AMA Group
Disability Program's
Fate Undecided**

● AMA Board of Trustees, after hearing many charges and counter-charges, followed by barrage of letters from physicians, decided to ask the House of Delegates to resolve the issue in June.

The House, at Annual Convention in Atlantic City, June 18-22, will have special ad hoc reference committee to hear testimony on the issue, recommend action to the House. Any AMA member may testify before the committee.

**Physician Opposition
Lacking to H.R. 5710**

● Lack of strong grass roots physician opposition to H.R. 5710, the Social Security Amendments of 1967, proposed sweeping amendments and expansion of Medicare Act, has socialized medicine advocates chortling with glee. They contend silence of physicians indicates capitulation, saying time is ripe for sweeping expansion of government programs.

Public Service

THE TENNESSEE TEN

Hadley Williams, Assistant Executive Director

Direct Payment Under Title XIX

● Three bills have been introduced in Congress which would amend the requirements for a state plan under Title XIX by adding a new requirement under which the plan would have to provide that payment for physicians' services would be made (1) to the recipient on the basis of a physicians' itemized statement of charges; or (2) on behalf of the recipient upon submission by the physician of his itemized statement of charges.

The bill numbers and sponsors are: H.R. 9484 by Rep. Hale Boggs (D. La.) a member of the Ways and Means Committee; H.R. 9584 by Rep. Edwin W. Edwards (D. La.) and H.R. 9694 by Rep. James B. Utt (R. Calif.) also a member of the Ways and Means Committee.

This procedure was suggested by AMA President, Dr. Charles L. Hudson, when he testified before the Ways and Means Committee on amendments to the Social Security Act.

Physicians are urged to communicate with their Congressman to seek support for legislation which would allow direct billing under Title XIX programs.

Medical Assistants Hold Annual Meeting

● The 11th annual meeting of the Medical Assistants Society of Tennessee was conducted in Nashville May 5-7.

Dr. O. Morse Kochtitzky, of Nashville, past chairman of the TMA Communications and Public Service Committee, was a featured speaker at the conference.

MAST officers elected for the coming year are: Mrs. Martha Puryear of Nashville, president; Mrs. Joan Hutchens of Maryville, president-elect; Mrs. Lois France of Johnson City, vice-president; Mrs. Mary Kiser of Johnson City, treasurer; and Mrs. Sue McJunkin of Knoxville, secretary.

Dr. G. Baker Hubbard, of Jackson, TMA past-president, installed the new officers at the Society's annual banquet and Dr. William F. Meacham of Nashville served as Toastmaster for the occasion.

AMPAC Workshop

● The annual AMPAC National Workshop was held in Washington D.C., June 3-4 at the Sheraton Park Hotel.

Three senators and four members of the House of Representatives appeared on the program. A panel composed of Senators George Murphy, of California, and Walter F. Mondale, of Minnesota, and Representatives Bob Wilson, of California, and Don Fuqua, of Florida, was a highlight of the meeting.

Representative Gerald Ford of Michigan, Senator Edmund S. Muskie of Maine, and Representative Robert Michel of Illinois were feature speakers.

Dr. Richard C. Sexton of Knoxville is the new Board chairman of IMPACT, the state committee for political action. Other members of the Board are: Dr. E. Kent Carter of Kingsport, Dr. Frank B. Graham of Chattanooga, Dr. Claude M. Williams of Cookeville, Dr. I. A. Nelson of Nashville, Dr. J. O. Williams of Mt. Pleasant, Dr. Lee Rush, Jr. of Somerville, Dr. Tom W. Johnson, Jr. of Dyersburg and Dr. B. G. Mitchell of Memphis.

**AMA Judicial Council
Issues Opinion on
Laboratory Services**

● The following questions and answers are provided by the AMA Judicial Council in response to inquiries raised by a number of medical societies.

QUESTION: A laboratory is owned by a physician who spends a small portion of his time directing and managing its financial and business affairs. The laboratory work is performed by technicians and directly supervised by a medical technologist with little or no participation by the physician-owner. The physician's name is used in connection with the laboratory in a manner to create the appearance that it is owned, operated and supervised by a doctor of medicine. Is the physician engaged in an unethical activity? Would it make any difference if he were not the owner, but merely received compensation for his time? Or if he were a partner with the supervising technologist or participated without receiving any compensation or share of the profits?

ANSWER: In each of the situations set forth above the physician would be guilty of deception and unethical conduct in misrepresenting or aiding the misrepresentation of laboratory services performed and supervised by a non-physician, as physician's services.

QUESTION: A laboratory, owned, operated and supervised by a non-physician in accordance with the state law, performs tests exclusively for physicians who receive the results and make their own medical interpretations. Is it permissible for physicians to utilize the services of these laboratories?

ANSWER: The physician's ethical responsibility is to provide his patients with high quality services. This includes services which he performs personally and those which he delegates to others. A physician should not utilize the services of any laboratory, irrespective of whether it is operated by a physician or non-physician, unless he has the utmost confidence in the quality of its services. He must always assume personal responsibility for the best interests of his patients. Medical judgment based upon inferior laboratory work is likewise inferior. Medical consideration, not cost, must be paramount when the physician chooses a laboratory. The physician who disregards quality as the primary criterion or who chooses a laboratory because it provides him with low cost laboratory services on which he charges the patient a profit, is derelict in not acting in the best interest of his patient. However, if reliable quality laboratory services are available at lower cost, the patient should have the benefit of the savings. As a professional man, the physician is entitled to fair compensation for his services. He is not engaged in a commercial enterprise and he should not make a markup, commission, or profit on the services rendered by others.

**General Assembly
Now in Recess**

● The 85th Tennessee General Assembly adjourned May 26th after one of the longest and busiest sessions in history.

Prior to adjourning the 60-legislative day session, legislators set February 13, 1968 as the reconvening date to complete the 30-legislative days remaining for the 85th General Assembly.

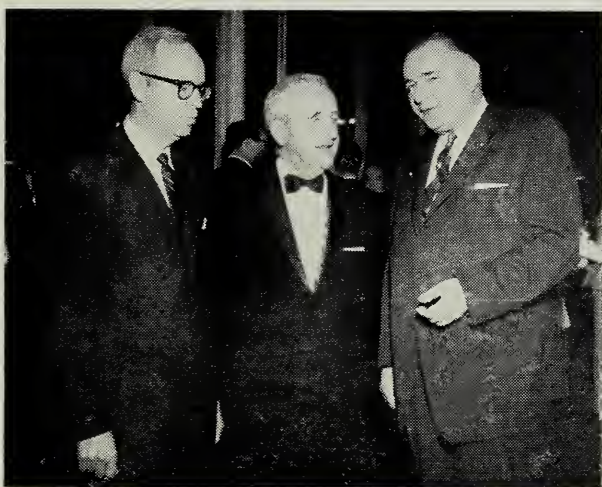
A record total of 1,201 bills were introduced in the House of Representatives and 1,158 bills in the Senate. All bills not receiving final action by both houses will lie over until the 1968 session. Standing committees of both houses will continue to function during the recess and may conduct public hearings on any bills pending.

**An Appraisal of
Letter Writers**

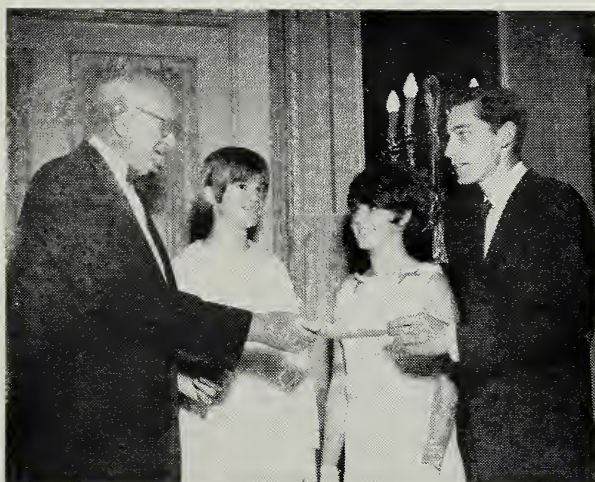
● "We may tell ourselves that pressure groups and letter writers represent only a small percentage of the voters — and this is true. But they are the articulate few whose views cannot be ignored and who constitute the greater part of our contacts with the public at large. . ." — John F. Kennedy (Profiles in Courage).

Highlights of the 132nd TMA Annual Meeting

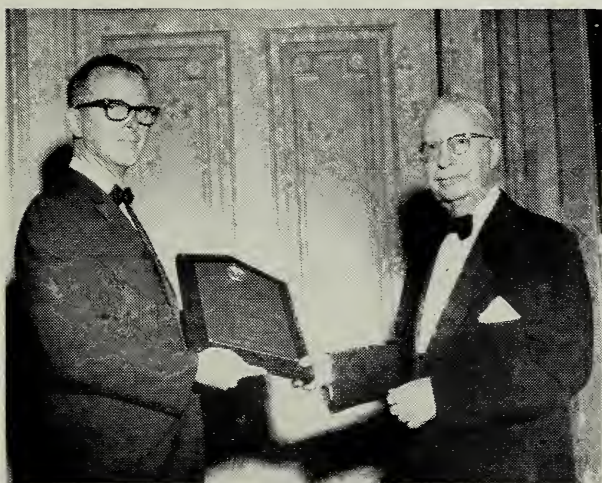
New officers elected by the House of Delegates are; seated, left to right: Dr. Parker D. Elrod of Centerville, vice-president for Middle Tennessee; Dr. K. M. Kressenberg of Pulaski, President; and Dr. Claude M. Williams of Cookeville, vice-president for East Tennessee. Standing, left to right: Dr. Tom E. Nesbitt of Nashville, speaker of the House; Dr. Edward T. Newell, Jr. of Chattanooga, president-elect; and Dr. R. L. DeSaussure of Memphis, vice-speaker of the House of Delegates. Dr. James H. Ragsdale of Ripley, vice-president for West Tennessee and Dr. James N. Thomasson of Nashville, secretary, were absent for the photograph.



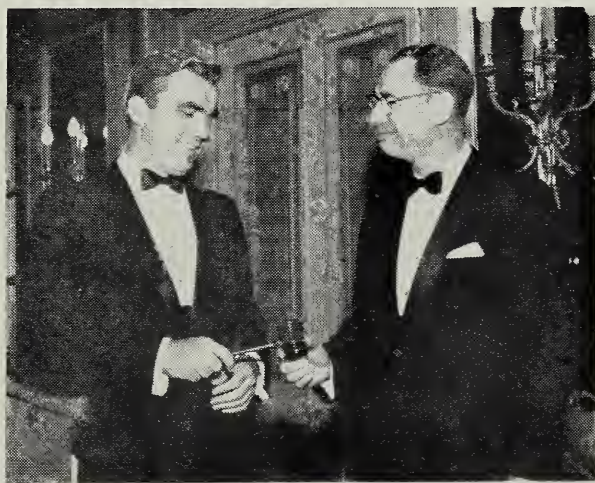
Guest speakers included Dr. Charles L. Hudson (center) of Cleveland, Ohio, President of the American Medical Association; Dr. Nicholas Nyaradi (right) of Peoria, Illinois, Director of the School of International Studies at Bradley University; and Dr. Hoyt C. Gardner of Louisville, Kentucky, member of the Board of AMPAC.



Dr. John C. Burch, retiring chairman of the TMA Board of Trustees, presented the \$500 first place Health Project Contest award to representatives of the Cleveland Day School. Left to right: Dr. Burch, Miss Judy Lowe, Miss Cyndy Magee and Mr. David B. Glenn, class sponsor.



Dr. Tom E. Nesbitt of Nashville, Speaker of the House of Delegates, presented the Physician-of-the-Year award to Dr. R. Eustace Semmes of Memphis.



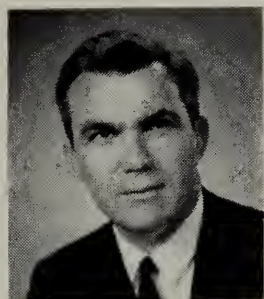
The new TMA President, Dr. Kenneth M. Kressenberg of Pulaski, received the symbol of his office from the retiring President, Dr. G. Baker Hubbard of Jackson, during the banquet that climaxed the meeting.



when he just can't sleep
Tuinal[®]

**One-Half Sodium Amobarbital and
One-Half Sodium Secobarbital
supplied in $\frac{3}{4}$, $1\frac{1}{2}$, and 3-grain Pulvules**

President's Page



DR. KRESSENBERG

The impact of organized medicine in the halls of government depends directly on how much you involve yourself in the affairs of medicine and particularly in IMPACT. The facts are now, I think, exceedingly clear—we cannot afford the luxury of being *too busy, too poor, or too disinterested*. To not particularly care about what happens to organized medicine means not to care about what happens to you and me.

If you care, and I am confident that the great majority of you do, then as Shakespeare put it so aptly “take arms against a sea of troubles, and by opposing, end them.”

Encroachment of the hospital upon the practice of medicine; the attempts of liberal do-gooders to solve social problems and medical problems through the blind use of more and more dollars; the possibility of Federal direction of all research activity through increasing amounts of Federal research financing; the gradual enslavement of medical practice through the use of administrative fiat; the continuing regulations of all phases of private business by bureaucrats who are not elected officials or responsive to the voice of the people; these are just a few of the problems confronting you and me.

Individually we can do little to combat these threats, except, of course, to complain and gripe about them. It is only when we join forces with our colleagues that really effective action is possible. I believe the most effective way of improving the practice of medicine and correspondingly, its image, is action at the hospital staff and county medical society level—participation at this level by every physician is vitally important. It is here where those physicians closely involved in the hospital-physician relationship problem and the public relations arena must stand fast behind those principles in which they believe and take appropriate action as a unified group.

In problems related to government and its increasing role in medical care, action at the TMA and AMA level is essential. It is here that our collective effort must be made to achieve the desired impact. It is at this level that we must discontinue thinking of ourselves as surgeons, internists or g.p.'s, and tune our thoughts and actions to the broader philosophy of doctors of medicine.

Apropos to all of this, I call on each member of TMA to examine himself critically and resolve to participate more actively in his association. Let's not have reference committees attended by only eight or ten people; let's not have annual meetings of our association attended by ten or fifteen percent of our membership; let's not permit people to say truthfully that doctors are too busy golfing, fishing, hunting, or what have you, to attend the needs of their patients or their association. Let's not get so caught up in the merry-go-round that we lose sight of the fact that our cherished right to do what we think is right is being seriously threatened by people who are not “too busy”.

Now is the time for all good men to come to the aid of their profession. Support IMPACT in the efforts to elect better representatives in the halls of government. Support your local and state Medical Association with your time, your talent, and your energy so that it becomes a vital representative of each individual physician in the state.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn. 37203

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JUNE, 1967

EDITORIAL

TAXATION OF ADVERTISING?

The following quotation is from the *Congressional Record* (House) May 17, 1967.

"MR. BATTIN: Mr. Speaker, Congress has delegated to the Commissioner of Internal Revenue broad powers to implement the Internal Revenue Code, and he has generally performed these functions with diligence, equity, and efficiency. It is, therefore, a matter of great concern to this Congress when the Commissioner proposes regulations which significantly change certain provisions of Revenue Act of 1950.

"The provisions of this act regarding the unrelated business income of tax-exempt organizations were adopted by this Congress after lengthy hearings. . . . Now, 17 years following the enactment of the Revenue Act of 1950, the Commissioner proposes to ignore the intent of Congress . . . and the law itself, to scuttle his own, longstanding regulations on the subject, and to provide new and different rules for tax-exempt organizations.

"I would be opposed to these changes, if they were proposed as an amendment to the Code. All of us, irrespective of whether or not we agree with their substance, have a duty to respond when changes in the laws enacted by Congress are at-

tempted in the form of administrative regulations. Such forages into the authority of Congress by any administrative agency cannot and should not go unnoticed for they solidify into dangerous precedents which threaten the separation of powers in our Government.

"With the able assistance of staff, I have reviewed the proposed regulations in the light of the legislative history of the Revenue Act of 1950 and the applicable provisions of the Internal Revenue Code. I would like to call your attention in the following discussion to some of the areas in which the proposed regulations are contrary to the applicable provisions of the Internal Revenue Code.

"In enacting the provisions of the Revenue Act of 1950—Internal Revenue Code, sections 511-514—dealing with unrelated business income, it was the intention of Congress to tax the income derived by certain types of tax-exempt organizations from business enterprises which are not substantially related to the purpose that constitutes the basis for their exemption. The legislative history plainly shows that the object was to tax the income of ordinary businesses conducted by exempt organizations, such as a macaroni or tire factory, or a commercial wheat farm conducted by a university."

The comments of the Honorable Representative from Montana point up the immediate threats to the income from advertising in the journals of tax-exempt organizations and which lend a large degree of financial support to the activities of such organizations, whether these be organized labor, the Boy Scouts, religious organizations, the National Geographic Society or the publications of educational institutions. Our editorial comment of the moment is prompted by the threat to advertising in medical journals which are the mouth-piece of medical societies or associations as well as to the income from commercial exhibits at meetings of such organizations.

The Internal Revenue Service has set hearings within the month to review and explore the status of advertising in journals of tax-exempt organizations with the thought of tapping a large source of taxation monies, a proposed 48% tax on advertising of tax-exempt organizations!

The taxability or nontaxability of income derived from advertising or the selling of exhibit space revolves around the legal definition and interpretation by the IRS of the term "unrelated business income." At the administrative level, District Directors have indicated two lines of attack upon advertising: (1) "that the journal of a medical or

health organization is not substantially related to the purpose constituting the basis of the organizations exemption because of the size of the publishing operation," and (2) "that the advertising content of the publication constitutes a separate and substantially unrelated business activity."* Mr. Hirst comments that the issue is:—"If the publication of a medical journal constitutes an exempt activity, that is an activity that fulfills the purpose constituting its basis for tax exemption, then it is immaterial how large or profitable this activity may be. On the other hand, if the publication is not a tax exempt activity, its size compared to the other organization activities may put it into the category of a substantially unrelated business activity."

Historical precedence should have a role in the consideration of taxability of advertising in journals or of exhibit income. As has been indicated by Hirsh, advertising has appeared in scientific journals for more than a century and a half, long before commercial publishers appeared on the scene. Advertising provided support for scientific publications long before the income tax and the complaint of "unfair competition" levelled by some of the journals organized for commercial advertising and income.

Your editor expects that each member of the Tennessee Medical Association, and of whatever other medical or scientific society or association he is a member, understands that the support of the journals and annual meetings of these organizations are supported only in small part by his annual dues, or, to emphasize the point, if advertising in the journals of medical and health organizations and income from exhibit space were to be declared taxable, the maintenance of journals and annual sessions at their present level might need to be met by a great increase in dues.

*Hirsh, Bernard D., Director of Law Department of the AMA, Presented at the American University "Conference on Federal Tax Aspects of Nonprofit Organizations" At the Statler Hilton Hotel, Washington, D. C., Nov. 16, 1965.

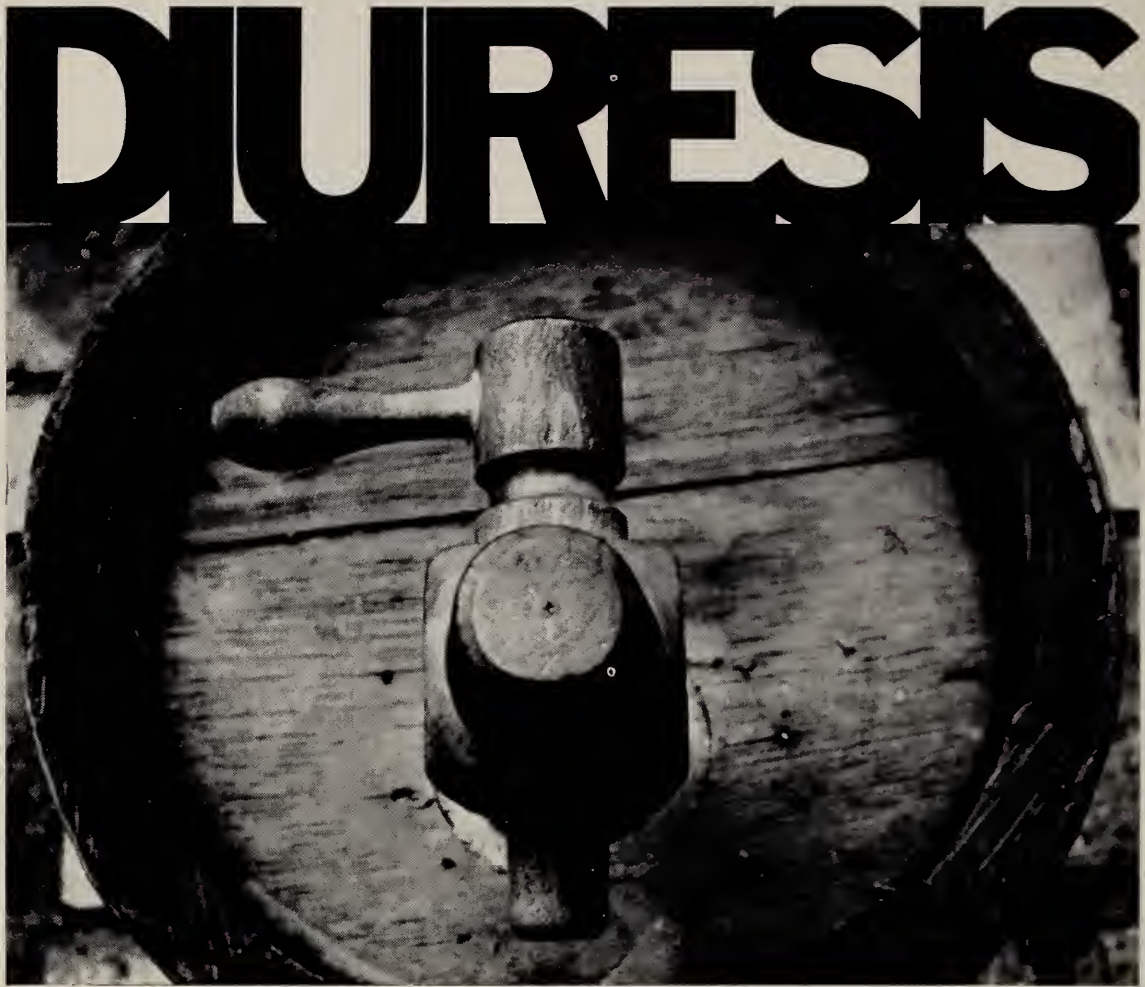
This is not meant to be as crass as it may seem. Today's advertising whether in a journal or as a commercial exhibit represents an educational medium, since basically advertising is so screened today that it offers a safe method of acquainting the physician of new medicaments, etc. applicable to the care of patients. The exhibit even more so permits verbal communication and education.

No matter which methods of continuing education may evolve in coming years, the printed word will remain within the foreseeable future the major tool in education—it remains retrievable for analysis, reading and rereading. The lecture, the TV medical program, the panel discussion, the staff rounds, unless recorded in the printed word, are lost. Good medical care depends on reading, as Osler commented,—“It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it.” This points up the enormity of the threat posed to scientific publications.

It is in recognition of this threat of taxation on advertising in publications of tax-exempt organizations that three bills are in the hopper of the House of Representatives to assure by amendments of the 1950 tax laws the continuation of the philosophy expressed then, and recapitulated by Mr. Battin as quoted above. These are H.R. 8766, 9103, and 9763 by Watts of Kentucky, Broyhill of Virginia and Battin of Montana respectively. It would be your Editor's hope that the readers of these comments would take a few moments to write their representative in the Congress asking support of this amplifying legislation.

One cannot resist the naive observations that the ways of government are devious,—to collect monies at the expense of continuing education of medical and scientific organizations for the underwriting of continuing education of the professions by federal agencies and monies!

R.H.K.



MERCUHYDRIN[®] (meralluride injection)



Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"¹ established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in $\frac{1}{3}$ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell² has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967*, p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

IN MEMORIAM

McClure, C. C., Sr., Nashville. Died 19, April, 1967, Aged 74. Graduate of Vanderbilt University School of Medicine 1918. Member of Nashville Academy of Medicine and Davidson County Medical Society.

Campbell, Earl Roy, Sr., Chattanooga. Died 12, May, 1967, Aged 73. Graduate Tulane University School of Medicine, New Orleans, 1921. Member of Chattanooga and Hamilton County Medical Society.

Plog, Gerald S., Martin. Died 13, April, 1967, Aged 51. Graduate of University of Tennessee College of Medicine, Memphis, 1941. Member of Weakley County Medical Society.

Pearce, Lee Powers, Sheffield, Alabama, formerly of Memphis. Died 5, May, 1967, Aged 82. Graduate of Memphis Medical College.

Richards, William Daniel, Knoxville. Died 8, April, 1967, Aged 86. Graduate of Vanderbilt University School of Medicine, 1906. Member of Knoxville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga-Hamilton County Medical Society

A seminar on emergency care for the sick and injured was presented by the Chattanooga-Hamilton County Rescue Service, in cooperation with the Chattanooga-Hamilton County Medical Society on April 29th at Memorial Auditorium. The seminar was designed for individuals who have the responsibility of rendering or administering first aid and emergency care. Topics of discussion and speakers on the program were: "Limitation of Immediate Care" by Dr. Frank B. Graham, President of the Medical Society; "Airway Care, Suction, Oxygen Inhalation" by Dr. Robert E. Baldwin, anesthesiologist; "Artificial Respiration"—Dr. John T. Albritton, anesthesiologist; "Cardiac Arrest and Heart Attacks"—Dr. Walter Puckett, Cardiologist; "Shock and Burns"—Dr. William E. Rowe, general surgeon; "Emergency Child Birth"—Dr. Paul Johnson, obstetrician; "Head Injury and Transportation of the Unconscious"—Dr. Roger Gordon Veith, neurosurgeon; "Bleeding and Bandaging"—Dr. Harry A. Stone, general surgeon; "Poisoning by Drug, Chemical, Food or Gas"—Dr. Ronald Ed-

ward Eith, pediatrician; "Fractures and Dislocations"—Dr. Nicholas Forlidas, orthopedic surgeon; "Chest and Abdominal Injuries"—Dr. Thomas L. Buttram, general surgeon; "Transportation of the Emotionally Disturbed Patient"—Dr. Joseph W. Johnson, Internist; and "Emergency Vehicle Operation" by Dr. James L. Craig.

The regular monthly meeting of the Society was held in the auditorium of the Interstate Building on June 6th. The scientific program consisted of a presentation entitled "Care-Medico—Afghanistan" by Dr. Clarence Shaw and an interesting case reported by Dr. Gene H. Kistler.

Memphis-Shelby County Medical Society

Dr. Tom E. Nesbitt, Nashville, Chairman of TMA's Committee on Governmental Medical Services, Mr. Hadley Williams, Public Service Director, TMA, and Dr. John H. L. Heintzelman, Director of Medical Services, Tenn. Dept. of Public Health, discussed Title XIX of the Social Security Amendments of 1965 and its present status in Tennessee at the meeting of the Memphis and Shelby County Medical Society on May 2nd. The meeting was held in the auditorium of the Institute of Pathology.

Knoxville Academy of Medicine

Members of the Knoxville Academy of Medicine heard an interesting presentation entitled "Lymphangiography" by Dr. Edward Buonocore at its regular monthly meeting on April 11th.

The scientific program for the meeting of the Academy on May 9th was provided by the Knox County Unit of the American Cancer Society. Dr. John E. Ray, Associate Professor of Surgery at Tulane University School of Medicine and Associate Head of the Department of Colon and Rectal Surgery at Ochsner Clinic in New Orleans, was guest speaker. His subject was "The Precancerous Nature of Colonic and Rectal Polyps." Members of the medical societies from Anderson, Union, Roane, Loudon, Blount, Sevier, Jefferson and Grainger counties were invited to hear the presentation.

Roane-Anderson County Medical Society

Dr. Joe Tittle, Delegate, and Dr. E. C. Cunningham, Alternate Delegate, reported

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Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

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*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.

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Ames

on the actions of the House of Delegates of the Tennessee Medical Association at the meeting of the Society on April 25th. The meeting was held in the cafeteria of the Oak Ridge Hospital.

The May 23rd meeting of the Society was held at the Alexander Motor Hotel, Oak Ridge. The scientific program entitled "Cerebral Ischemia" was presented by Dr. William Meacham, professor and chairman of the department of neurosurgery, Vanderbilt University School of Medicine, Nashville.

Consolidated Medical Assembly of West Tennessee

The Assembly held its monthly meeting on the evening of May 2nd in the New Southern Hotel. The meeting was preceded with a dinner for those attending. The House of Delegates met prior to the Society's meeting and took action on several important matters affecting the Society.

The meeting consisted of a presentation by delegates and officers who attended the Tennessee Medical Association's annual meeting. Dr. O. M. McCallum presided in the report session given by Drs. Julian K. Welch, Lee Rush and Thomas K. Ballard. Actions taken on all resolutions, amendments, and activities of the standing and special committees of the Tennessee Medical Association were reviewed. TMA Field Secretary, Mr. Tom Sawyer, and Mr. Jack Ballentine, Executive Director of TMA presented and discussed a slide film and commentary on the Title XIX "Medicaid" program as contained in Public Law 89-97 (Medicare). Approximately forty members of the Society were in attendance.

NATIONAL NEWS

The Month in Washington

(From Washington Office, AMA)

The American Medical Association proposed that Congress set up a National Commission on Health Resources and Medical Manpower with broad powers to supervise the drafting of physicians for military ser-

vice. The AMA recommendation was presented by Dr. Albert H. Schwichtenberg, chairman of the AMA Council on National Security, at a Senate Armed Services Committee hearing on S. 1432 which would provide for a four-year extension of the present draft law expiring June 30. Other AMA recommendations for modification of the doctor draft program included:

—Expansion of the physician draft pool to include women doctors.

—Making subject to draft call foreign physicians under 35 years of age, with permanent visas or who have subsequently become citizens, and who may not be subject to call because they were not deferred from induction while under age 26.

—Limiting credit for fulfillment of the draft obligation to only service performed in the armed services. (Under the old law, service in the Public Health Service could satisfy a physician's obligation for active military duty.)

—Routine transfer, upon completion of an internship, of the jurisdiction of physicians to the local draft board serving the area in which the physician is engaged in training or practice.

—Changes in the pay and promotion policies for military physicians designed to increase the retention of career military physicians.

"Our primary recommendation . . . is the creation of a National Commission on Health Resources and Medical Manpower," Dr. Schwichtenberg said. "This Commission would replace and be responsible for the functions of the present National Advisory Committee and the Health Resources Advisory Committee. This new Commission, under the direction of the President, would have the responsibility of maintaining a proper balance of health personnel, within existing resources, among the Armed Forces, other Government agencies, and the civilian population. Requests of the Secretary of Defense for health manpower in the military would be reviewed and approved by the Commission. The Commission would establish for the Selective Service System criteria for classifying, reclassifying and determining the order of selection for health personnel. Under this proposal, the present State Advisory Committees would be redesignated as State Health Manpower Committees, whose activities would be coordinated by the National Commission. It is further recommended that the Commission should be constituted from among persons of outstanding national reputation in the health-care fields, and its



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composition should include substantial representation from physicians in private practice."



The National Highway Agency announced tentative standards for emergency medical services provided for persons injured in traffic accidents. The federal standards give the states broad authority in implementation and also are subject to comment by the states before they become final. The state programs must be in full operation before January 1, 1969, or a state could lose up to 10 percent of its allotted federal highway construction funds.

Although the federal standards apply only to traffic accidents, they are expected to necessarily set a pattern for emergency medical services generally. Dr. William Haddon, Jr., head of the National Highway Safety Agency, said the emergency care regulations are designed to provide quick response to accidents, sustain and prolong life through proper first aid measures, reduce the likelihood of permanent disability and prolonged hospitalization, and provide speedy transportation of accident victims to hospitals. The federal standards would require states to:—Appoint a full-time medical emergency services coordinator to have primary responsibility for the program—Prepare a comprehensive plan for emergency services throughout the state—Establish training, licensing and related requirements for ambulance drivers, attendants, and dispatchers—Coordinate ambulance and other emergency medical care systems, including requiring ambulances to carry two-way radios hooked up with the police and hospitals—Provide first aid training and refresher courses for emergency service personnel and policemen and firemen, and encourage first aid instruction for the public.

Other draft regulations with medical aspects: Make physical and eyesight examinations for driver licensing—Do compulsory blood tests for alcohol on drivers in accidents.



Dr. John C. Nunemaker, chairman of the American Medical Association's Depart-

ment of Graduate Medical Education, told a House Judiciary Subcommittee that the AMA's position continues to be that graduates of foreign medical schools who come to the United States for training "should be encouraged in every possible way to return to their home countries where their skills are so badly needed."

Dr. Nunemaker suggested that the five-year length of stay provision for physicians on exchange programs be reconsidered. Every year beyond two or three years "intensifies the desire of the visitor to stay longer", he noted.

MEDICAL NEWS IN TENNESSEE

Middle Tennessee Medical Association

The 145th Semiannual Meeting of the Middle Tennessee Medical Association was held in Gallatin, May 18th. Dr. Thomas F. Carter, President of the Sumner County Medical Society, presented the welcome address and the invocation was rendered by The Reverend B. L. Alexander, First Methodist Church, Gallatin.

Speakers and their subjects were: Dr. Joseph L. Wilhite, Madison—"Hemoptysis"; Dr. Wm. C. Alford, Jr., Nashville—"Experience with the Souttar Tube in Esophageal Carcinoma"; Dr. Dorothy Turner, Nashville—"Immunofluorescence in the Identification of Bacteria in Meningitis"; Dr. Parker D. Elrod, Centerville—"Treatment of Fat Emboli and Case Report"; Dr. James R. Hamilton, Nashville—"Use of Methotrexate in Psoriasis"; Dr. J. Kenneth Jacobs, Nashville—"Practical Considerations in the Diagnosis and Treatment of Parathyroid Tumors"; Dr. John S. Warner, Nashville—"Evaluation of the Demented Patient"; Dr. Carl E. Mitchell, Nashville—"Indications for Surgery in Pericarditis"; Dr. G. William Davis, Nashville—"Hip Fractures, A New Type of Internal Fixation"; Dr. Everett M. Clayton, Jr., Nashville—"Prevention of Rh Sensitization"; Dr. David Stewart, Gallatin—"Comments on the Assassination of President Kennedy"; Dr. Charles B. Keppler, Sewanee—"LSD"; Dr. W. Andrew

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condition is characterized by nervousness, irritability, weight gain, breast tenderness, backache, etc., during the premenstrual period.

ADMINISTRATION AND DOSAGE: In premenstrual tension, 2 tablets twice daily (morning and night) beginning when symptoms are expected, usually 5 to 7 days before menstruation. Stop medication at onset of flow.

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PRECAUTIONS: Should not be used more than every 4 to 6 hours. Should not be given within 12 hours following rectal administration of theophylline or aminophylline. Do not use when cough preparations containing theophylline or aminophylline are being administered. Because of the diuretic

effect of Theophylline, children under four years of age should be watched for signs of dehydration. Caution is indicated in patients with severe renal and hepatic disease, myocardial damage, hyperthyroidism, and glaucoma.

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GLYNAZAN TABLETS, uncoated, 5 grains (equal to 2½ grains Theophylline N.F.); Adult dose—1 to 3 tablets every 4 to 6 hours; preferably administered with water after meals.

GLYNAZAN ELIXIR (contains alcohol 15%): A palatable elixir containing Glynazan 5 grains (equivalent to 2½ grains Theophylline N.F.) per 5 cc. teaspoonful.

Children over 12 years: ½ to 1½ teaspoonfuls every 4 to 6 hours. • 6 to 12 years: ½ to 1 teaspoonful every 4 to 6 hours. • 3 to 6 years: ½ teaspoonful every 4 to 6 hours. • 1 to 3 years: ¼ to ½ teaspoonful every 4 to 6 hours. • Adult dose: 1 to 2 teaspoonfuls every 4 to 6 hours.

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Dale, Nashville—"Cross-over Vein Grafts for Ilio-Femoral Obstruction"; and Dr. Paul H. Ward, Nashville—"Mediastinoscopy."

A Symposium on Tuberculosis was moderated by Dr. Roger Des Prez of Nashville. Panelists were Drs. Robert Goodwin and M. Glenn Koenig, Nashville.

University of Tennessee College of Medicine

Dr. M. K. Callison, Dean of the College of Medicine, has announced the appointment of five new faculty members. Dr. Robert Paul Christopher, formerly assistant professor in the department of physical medicine, University of Michigan, has been named chief of the division of physical medicine and rehabilitation, Department of Medicine. Dr. Alphone Thomas Masi, former associate professor of epidemiology at Johns Hopkins School of Hygiene and Public Health, is new director of the section of rheumatology and will also establish a laboratory to teach data-processing techniques in epidemiological studies in Memphis as a pilot city in arthritic research. Dr. Walter Norton, formerly assistant professor of internal medicine, rheumatic diseases, University of Texas Southwestern Medical School, will establish a section of clinical immunology and a laboratory on electron microscopy.

Heading the newly organized section of diagnostic radiology in the Department of Radiology is Dr. W. J. Howland; and Dr. Raymond L. Tanner will head the Department's newly-equipped section of radiation physics.



Dr. Harry H. Wilcox, professor and deputy chairman of the Anatomy Department, University of Tennessee Medical Units, has been awarded the Goodman Professorship "for outstanding accomplishments in teaching and scholarly pursuits." Supported by the Abe Goodman Fund Advisory Committee to recognize the importance of teaching ability, the honor carries with it a salary supplement of \$2,000 a year.



Dr. Michael W. Rytel, assistant professor of medicine at the University of Tennessee College of Medicine, has received the Lederle Medical Faculty Award, made annually

to maintain the high caliber of medical education and to encourage medical teachers to remain in a teaching capacity. A grant of \$28,500 in support of Dr. Rytel's teaching and research accompanied the award. His was one of 11 such awards made by Lederle Laboratories in this country this year.



Study Grants—Dr. James N. Etteldorf, professor of pediatrics, has received renewal of a grant from the National Heart Institute in support of multidisciplinary pediatrics training in cardiology, endocrinology, hematology and other specialties. The grant, to become effective July 1, is for \$50,614. Now in its eighth year, the program is co-directed by Dr. Loren E. Ainger, also of pediatrics.

Dr. Robert L. W. Averill, assistant professor of physiology, has been awarded a USPHS grant of \$35,000 for support of research on the control of the pituitary gland. Dr. Averill is currently investigating mechanisms concerned with the release of a thyroid-stimulating hormone from the pituitary.

Dr. Fred E. Hatch, associate professor of cardiovascular diseases, has received a three-year grant from the American Heart Association for his study of anemia of chronic renal diseases. The first year of the grant will provide \$11,000 for the clinical research study which is related to basic research now being conducted by Dr. James W. Fisher, professor of pharmacology.

A \$176,000 grant covering a three-year period has been awarded the University of Tennessee Medical Units to finance an expanded program of graduate training in otolaryngology. The grant from the National Institute of Neurological Diseases and Blindness, division of the U. S. Public Health Service, went to Dr. Edwin N. Rise, assistant professor of surgery in otolaryngology at UT and the chief of otolaryngology for City of Memphis Hospitals. The new grant will make possible a substantial broadening of the present program and clinical services offered in this area.

Vanderbilt University School of Medicine

The John A. Hartford Foundation has awarded a \$136,760 grant to Vanderbilt Uni-



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RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects oc-

cur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

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versity school of medicine for research of respiratory infection among young children. The study will be conducted by Drs. Sarah H. Sell, Dorothy J. Turner and William J. Cheatham. The three-year study is expected to yield information relating to the prevention of the disease by a vaccine, and causes and prevention of other related respiratory infections.

Medical Symposium in Bristol

Physicians from Southwest Virginia, East Tennessee and bordering towns of North Carolina attended the sixth annual Medical Symposium conducted by Bristol Memorial Hospital on April 20th. Organized by Dr. Robert Repass, the symposium featured noted medical authorities who spoke on collagen disease—arthritis and rheumatism. Speakers included: Dr. Sheldon Summers, professor of pathology at the College of Physicians and Surgeons of Columbia University; Dr. Gene H. Stollerman, chairman of the University of Tennessee department of medicine; Dr. John Decker of the National Institute of Health, Bethesda, Md.; and Dr. Donald McCollum of the department of orthopedic surgery at Duke University.

Tennessee Heart Association

Tennessee's outstanding contributors to heart research were featured speakers at the annual meeting of the Tennessee Heart Association, May 11-13 in Chattanooga. Speakers included: Dr. J. Leo Wright of Baptist Memorial Hospital in Memphis; Dr. Lawrence M. Fishman of Vanderbilt University in Nashville; Dr. James Wennemark of the University of Tennessee Medical School in Memphis; and Dr. William Pettinger of Vanderbilt.

A panel discussion on coronary artery diseases was presented by Dr. Leo Horan of U.T.; Dr. Eugene Klatte of Vanderbilt; and Dr. Norman Davis of the University of Tennessee.

Following an afternoon of workshops on heart programming and campaigning, the meeting climaxed with the annual President's Dinner honoring outgoing President Laurence A. Grossman of Nashville.

PERSONAL NEWS

Dr. Robert C. Owen will become associated with **Dr. Clyde Alley**, 1914 Church Street, Nashville, in July for the practice of otolaryngology. Dr. Owen is a graduate of UT School of Medicine in Memphis, interned at Vanderbilt and Nashville General Hospitals, took a one year assistant residency in surgery at Barnes Hospital in St. Louis, and completed his residency in otolaryngology at Vanderbilt University.

Dr. James G. Hughes, Memphis, Chairman, Department of Pediatrics, U. T. School of Medicine, was a guest lecturer for the Section on Pediatrics at the annual meeting of the Oklahoma State Medical Association, May 11-13. Dr. Hughes' subject was, "Management of the Epileptic Child."

Dr. W. W. Potter, Knoxville physician for 54 years, was honored by the Knoxville Academy of Medicine on April 11th. An engraved plaque was presented to Dr. Potter by Dr. George Zirkle, president of the Academy.

Dr. James A. Burdette, Knoxville, will become a research fellow in family medicine at Children's Hospital Medical Center at Harvard Medical School, Boston, July 1st. During his year at Harvard, Dr. Burdette will be doing "preceptorship teaching," utilizing his 12 years of experience in lecturing to senior medical students and overseeing their work with families at the center. This is the third year that Harvard has conducted the family medical care program, and Dr. Burdette is the third physician chosen to supervise it.

Dr. B. W. Frizzell, Johnson City, was guest speaker at a recent meeting of the Tennessee Licensed Practical Nurses Association, Inc., Area 17.

Dr. Crawford Adams, Nashville, has been installed as president of the Middle Tennessee Heart Association. Dr. Morse Kochtitzky, Nashville, is President-Elect to succeed Dr. Adams.

Dr. W. H. Blackburn, Camden, has been appointed by the Governor to the State Game and Fish Commission.

Drs. B. F. Byrd, Jr., John L. Shapiro, Robert N. Sadler, and William L. Caldwell, Nashville, were participants on the program for a district medical and scientific seminar sponsored by the Tennessee Division, American Cancer Society, in Lebanon on May 8th.

Dr. B. J. Smith, Hohenwald, and **Dr. Edgar K. Bratton**, Hartsville, have been elected to active membership in the American Academy of General Practice.

Dr. J. W. Irwin, Blountville, has been elected as Sullivan County Physician, a post he has unofficially filled for more than a year. **Dr. George Beckman**, Chattanooga, has been named Hamilton County Coroner and medical examiner, and **Dr. L. H. Shields**, Athens, has been named medical examiner for McMinn County.

Dr. Thomas M. Minor, Paris, has been named

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Drs. Coyle Shea, Huey Porter, Orin D. Butterick, and Ralph Braund, Memphis, presented papers at the meeting of the Association of Surgeons of the Southern Railway System on April 23rd. The program for the meeting was arranged by Dr. Harwell Wilson, Chairman of U. T.'s department of surgery.

ANNOUNCEMENTS

Dr. Julian C. Lentz, Jr., Maryville, and **Dr. Ben D. Hall**, Johnson City, will serve as delegates at the 11th annual meeting of the American Society of Internal Medicine April 7-10 in San Francisco. Drs. Lentz and Hall will represent the Tennessee Society of Internal Medicine.

Dr. David Patterson has opened his office for the practice of general surgery in Greeneville.

Dr. Richard A. Obenour, Knoxville, was installed as president of the East Tennessee Heart Association at the 19th annual meeting in Knoxville on May 3rd.

Dr. Gene Stollerman, chairman of the department of medicine, University of Tennessee, has been appointed a member of the American Board of Internal Medicine and also editor of "Advances in Internal Medicine of Yearbook Publications" in Chicago.

Calendar of Meetings, 1967

State

Oct. 2-3 Tennessee Valley Medical Assembly, Chattanooga

National

June 26-29 American Orthopaedic Association, Homestead, Hot Springs, Va.

August 21-24

Sept. 7-9

Sept. 14-16

Sept. 15-23

Sept. 22-30

Sept. 29-Oct. 3

Oct. 1-4

Oct. 2-6

Oct. 5-7

Oct. 21-26

Oct. 22-23

Oct. 25-28

Oct. 27-30

Oct. 29

Oct. 29-Nov. 1

Oct. 29-Nov. 3

American Hospital Association, Chicago

American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.

American Thyroid Association, Michigan Union, Ann Arbor, Michigan

American Academy of General Practice, Dallas, Texas

American Society of Clinical Pathologists, Palmer House, Chicago

American Society of Anesthesiologists, Las Vegas, Nev.

Neurosurgical Society of America, The Biltmore, New York

American College of Surgeons (Annual) Conrad Hilton, Chicago

Association of American Physicians and Surgeons, Sheraton-Lincoln, Houston

American Academy of Pediatrics, Washington Hilton Hotel, Washington, D. C.

American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Fla.

Congress of Neurological Surgeons, San Francisco Hilton Hotel, San Francisco

Association of American Medical Colleges, New York Hilton, New York

American Association of Ophthalmology, Palmer House, Chicago

American College of Gastroenterology, Biltmore Hotel, Los Angeles

American Academy of Ophthalmology & Otolaryngology, Palmer House, Chicago

Murfreesboro—Vacancies: Staff Physicians

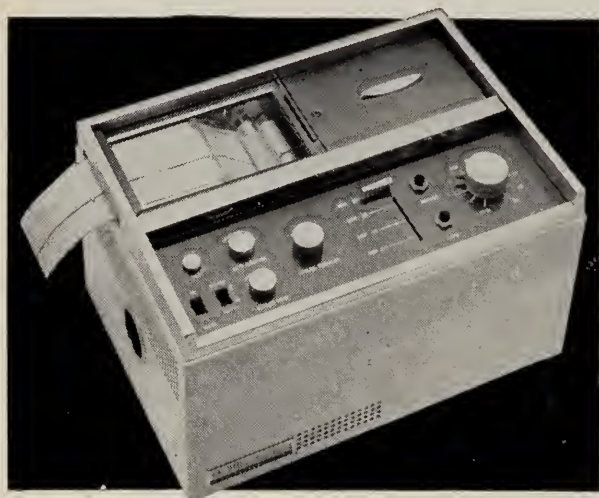
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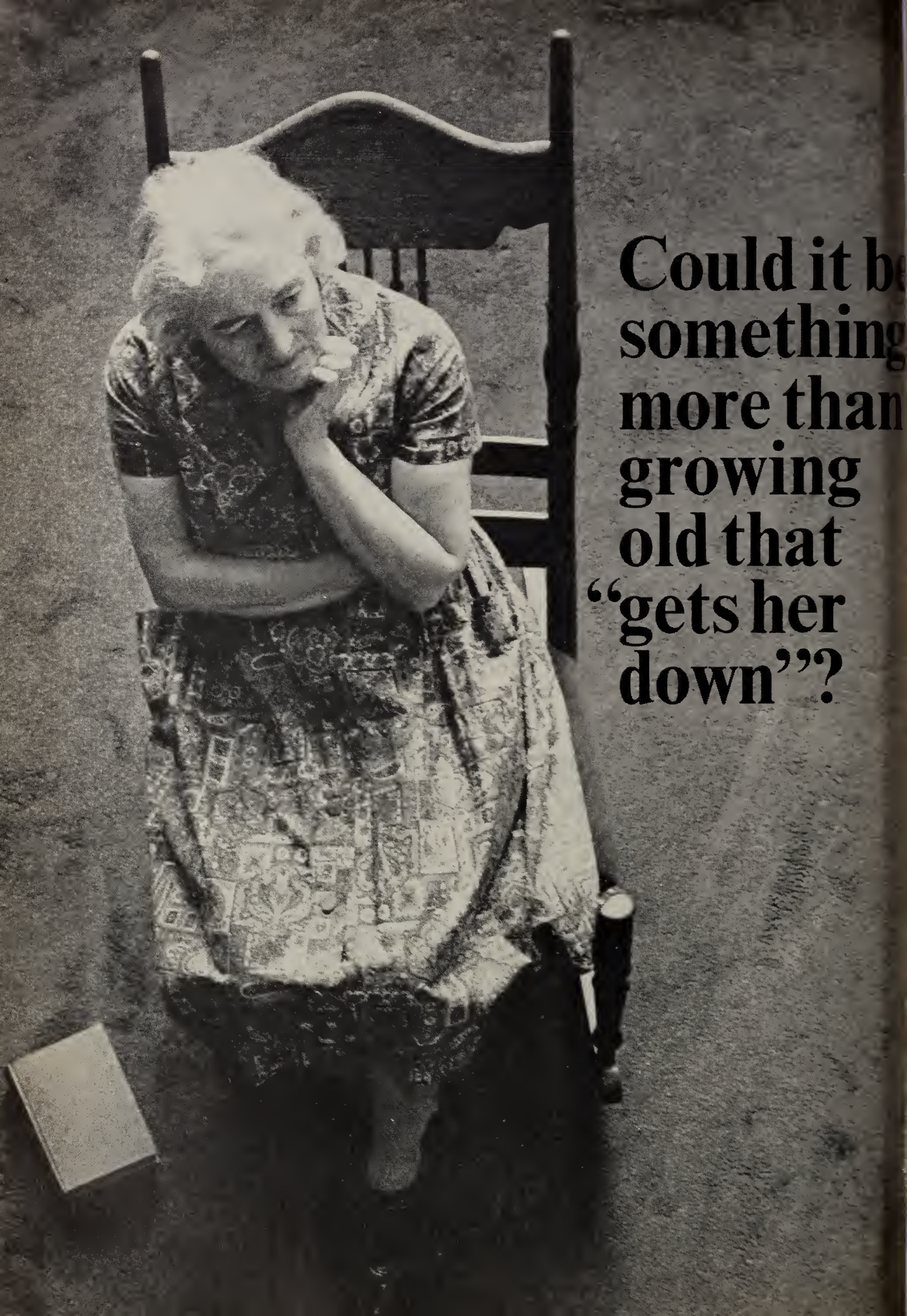
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The authors make a critical evaluation of their results with a shunt-type of operation for endolymphatic hydrops (Meniere's disease). They indicate that results are inconclusive as of this time.

Epidural Endolymphatic Shunt Operation. A Further Report*

ANTONIO MAZZONI, M.D., and JOHN J. SHEA, JR., M.D.,† Memphis, Tenn.

The subject of this article concerns the surgical treatment of Meniere's disease and of endolymphatic hydrops with a short report on the results of the epidural endolymphatic shunt.

The term Meniere's disease refers to a clinical condition which presents an association of auditory, vestibular and neurovegetative symptoms,—namely, unilateral fluctuating deafness, attacks of vertigo, tinnitus, feeling of fullness in the ear, distortion of sounds, nausea and vomiting. A tendency to a cluster distribution in time of the attacks would be characteristic of the course of Meniere's disease.

The term endolymphatic hydrops has a morphologic meaning which implies an abnormal and excessive collection of endolymph in the membranous labyrinth. However, this term has gradually acquired a broad clinical significance to mean not only Meniere's disease but also conditions presenting a fluctuating hearing loss with audiologic findings of a cochlear lesion, whereas vestibular symptoms in the form of attacks of vertigo may or may not be present. Many causes are known to produce endolymphatic hydrops, such as trauma, emotional shock, allergy, drugs, tobacco, operation upon the middle and inner ear, syphilis, presbycusis and congenital perceptive deafness.

The medical treatment is based, during the acute phase, on sedation, regimens directed against the retention of water, and vasodilators. During remissions the most effective management seems to be the prevention of psychic strain and emotional stress, and an anti-allergic regimen.

Surgical procedures can be divided into two categories, conservative and radical, according to their objective.

The *radical* procedures, as labyrinthectomy and section of the eighth nerve, are purely destructive and are employed when the pathologic process is far advanced and the anatomic structures are only a source of pathologic sensations.

Partially *conservative* procedures are the ultrasonic irradiation and cryotherapy of the labyrinth, which produce a localized destruction of the vestibular organs preserving the cochlea.

On the contrary, the operations for drainage of the endolymphatic sac would be fully conservative, since their intent is to relieve the vestibular and auditory symptoms while preserving the anatomic and functional integrity of the labyrinth.

The ideologic basis for shunt operations is that the excess amount of endolymph causes the disturbance in the end organ in a purely mechanical way, and that the simple draining off of the endolymph should relieve pressure and volume imbalance as well as symptoms. However, this theory has so far received uncertain support by experimental investigations and by pathologic studies. In brief, it seems that the vestibular disturbances may well be related to volume imbalances of endolymph.¹ In fact, the deformations of the membranous labyrinth, as the dilated saccule and utricle, their outpouchings and herniations in the

*Read at the meeting of the Tennessee Academy of Otolaryngology, April 13, 1967, Memphis, Tenn.

†From the Memphis Otologic Clinic and Memphis Foundation of Otology, Memphis, Tenn.

openings of semi-circular canals, can produce the mechanical stimuli for the sensory organs of maculae and ampullae.² It is more difficult to explain the hearing loss on a physical basis, and a metabolic or chemical cause would seem more meaningful.^{1,3,4} However, ruptures of membranous walls with intermingling of labyrinthine fluids would produce the conditions of both mechanical and clinical theories. Furthermore, the question needs to be considered whether such a gross alteration as the endolymphatic hydrops could not be the result of an alteration in ionic content of the fluid of the inner ear which in turn can well explain the auditory signs.¹

On the other hand, the value of shunt operations still waits for a complete clinical assessment. None of the reports upon this operation have sufficient data, nor has an adequate period of time elapsed to allow a true evaluation. The average results from different authors approach the early report of Flett,⁵ who used the Portmann procedure in 73 cases. He stated that in 25% of the cases the hearing was retained and tinnitus and vertigo relieved. In 61% only the vertigo was improved, while failures occurred in 40 percent.

It is noteworthy to recall also that some cooling of the early optimism has been noted in the late reports on the shunt operations.

Many different technics of drainage of the sac have been presented. They are the classical Portmann operation,⁶ the subarachnoid shunt with the drainage tube of William House,⁷ the decompression of the sac⁸ and the epidural shunt.⁹

Report of Cases

The present report reviews the results obtained in 32 cases of endolymphatic hydrops in which an epidural endolymphatic shunt with Teflon film has been done.

The main steps of the epidural shunt are:—mastoidectomy, exposure of the bony plate of the sigmoid sinus and posterior cranial fossa, and exposure of the endolymphatic sac by removal of small area of bone on the posterior fossa. Thereafter, the lateral wall of the sac is incised and a long narrow triangular piece of Teflon film is inserted into the sac with its broad end ex-

tending into the dura of the posterior fossa towards the sigmoid sinus.

All of the patients of this series had had previous medical treatment, including sedatives, vasodilators, a fluid antiretention regimen for at least 6 months without a significant improvement.

The follow-up of the 32 patients ranges from 3 months to 2 years. Eleven patients have had a follow-up of only 3 months; 14 patients, 4 months to 1 year, and 7 patients 1 to 2 years.

Table 1

FOLLOW-UP IN EPIDURAL ENDOLYMPHATIC SHUNT
NUMBER OF PATIENTS: 32

1 to 2 years	7 Cases
4 to 12 months	14 Cases
3 months	11 Cases

In evaluating the results, two main symptoms have been considered:—(1) the vestibular symptoms, reported by patients as attacks of vertigo, temporary or permanent dizziness, and unsteadiness; and (2) hearing loss, as assessed by pure tone air and bone conduction and by speech discrimination.

Vestibular symptoms as vertigo and dizziness were present in 28 patients. The postoperative evaluation shows that the symptoms have been greatly improved or relieved in 10 patients or 35% of cases, improved somewhat but still present in 14 cases, or 50%, and unchanged in 4 patients, or 14% of cases.

Table 2

VESTIBULAR SYMPTOMS IN 28 CASES

<i>Postoperative Condition</i>	<i>Number of Cases</i>	<i>Percent</i>
Greatly improved or relieved	10	35%
Improved but still present	14	50%
Unchanged	4	14%

Fluctuating hearing loss was present in all of the 32 patients. The hearing has clearly improved in only 4 cases, or 12%; remained unchanged in 24, or 75% of cases; and made worse in 4 cases, or 12%.

Table 3

POSTOPERATIVE HEARING LOSS IN 32 CASES

	<i>Number of Cases</i>	<i>Percent</i>
Hearing clearly improved	4	12.5%
Hearing unchanged	24	75%
Hearing made worse	4	12.5%

Some further observations on the postoperative course deserve mention. The main

symptoms which changed in a short term were the attacks of vertigo. The patients usually report they have no more attacks of vertigo, or that they have only slight and nonincapacitating dizziness. However, with the passage of time the vestibular symptoms tend to recur, and in a further follow-up, the high rate of cure or great improvement is reduced to only 35 percent. In 4 patients the hearing improvement has been clear and unquestionable. The mean of the average bone conduction for the central frequencies (500, 1000, 2000 C/S) went up from 43 to 12 dB, and the average of the discriminations changed from 62% to 97%.

However, in most of the cases, the operation does not seem either to improve or to worsen the hearing, which keeps to present episodes of fluctuation and distortion of sounds. Therefore, as for the hearing, it would be apparent that the disease does not change its course in a high percentage of cases, although it is too early to definitely state so.

The hearing has been made worse in 4 cases, of which 3 were patients presenting a bad cochlear function with an average bone conduction of 60 dB and speech discrimination score of 30 to 20%. It would seem, thus, that the cochleas with poor function are prone to being irreversibly damaged by the trauma of this procedure.

In view of the above consideration, our present treatment for endolymphatic hydrops is as follows:

- (1) An exhaustive course of medical therapy;—if it fails to relieve the patients,
- (2) An operation upon the endolymphatic sac;
- (3) In case of failure, ultrasonic irradiation.
- (4) In patients complaining of severe symptoms and poor and useless hearing, we do a total labyrinthectomy.

Conclusions

The aims of the conservative surgery for endolymphatic hydrops have been said to be the control of both the vestibular and auditory symptoms. According to our experience with the epidural shunt, it needs to be recognized that clear improvement of hearing loss has been achieved in only 12% of

cases, whereas the control was either absent or questionable in another 75 percent.

Vertigo and dizziness have been significantly and satisfactorily improved in 35% of cases, while the relative improvement in another 50% is not considered by us as a satisfactory result for two reasons:—first, the patients, though feeling better, still have their dizziness and are psychologically and physically upset; second, in these cases higher rates of control of vertigo are provided by other procedures as, for example, by ultrasonic irradiation.

It seems to us that the so-called conservative surgery of the inner ear still rests on a quite empiric basis and its value has not yet been fully assessed. Admittedly, this results from the lack of adequate knowledge of normal and pathologic physiology of the inner ear, from the unpredictable course of the disease, and the short follow-up without comparative statistics. Nonetheless, we believe that the operations on the sac deserve further experience on the basis of the following considerations: (1) this operation is successful in one-third of the cases and does not seem to worsen the course of the disease (2) in the other two-thirds, if unsuccessful, the operation may be followed by a destructive procedure; (3) in bilateral cases, which make up 10% of the total, we are not faced with the problem of a bilateral destructive treatment; and (4) finally, we think that further experience should teach us to make a better selection of patients for operation and establish better surgical procedures. Moreover, by testing the patients with sophisticated vestibular and audiologic tests during the first days and weeks following the operation, we should be able to enhance our knowledge as to whether the benefit gained is due to the nonspecific mechanism of traumatizing the labyrinth and temporarily suppressing its function, to a transient hyperhemia, or whether this operation really interferes with the pathologic mechanism of the symptoms and the biologic processes of the disease.

Summary

A series of 32 patients of endolymphatic hydrops operated on with epidural endolymphatic shunt is presented. Vestibular symptoms have been satisfactorily relieved

in one-third of the patients, while hearing loss did not seem to change in most of the cases. Surgical procedures, including endolymphatic shunt, ultrasound irradiation and labyrinthectomy, are recommended, when exhaustive medical treatment is unsuccessful.

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The author describes the use of this operation for patients having persistant back-pain unrelieved by previous operations.

Bilateral-Lateral Lumbosacral Fusion. A Preliminary Report*

E. B. WILKINSON, JR., M.D., Memphis, Tenn.

This is a preliminary report of a small series of spinal fusions, using the bilateral-lateral lumbosacral fusion technique, as described by Dr. D. Keith McElroy, at the Orthopaedic Hospital, New York. The majority of these patients had fusion as a last resort after a failure of multiple surgical procedures.

Spinal fusion was first reported in 1911, when both Hibbs and Albee described methods of posterior spinal fusion. In 1933, Ghormley added autogenous cancellous iliac bone grafts, and Mercer described the anterior interbody fusion in 1936. In 1946, Jaslow modified interbody fusion, using a posterior approach. Fusion of the transverse processes was first described in 1939 by Dr. Willis Campbell, with a lateral approach.

Thirty-five patients have had this procedure, with follow-up on 22 patients. The majority of these patients were laborers and "compensation cases." The duration of disability ranged from less than one month to over 9 years. Eighteen of the 22 patients were fused from the fourth lumbar to the first sacral vertebra (Table 1). Failure of multiple disc surgery to relieve pain was the chief indication for fusion in this series (Table 2). Of the 4 patients without previous operation, 2 had spondylolisthesis, one

had a symptomatic fracture of a posterior element and one had localized advanced degenerative arthritis at the lumbosacral junction. The ages of the patients in this series ranged from 21 to 58 years, with the average age in the fourth decade.

Lateral fusion is carried out through a midline incision, usually extending from the level of the spinous processes of the second lumbar to the second sacral vertebra. In combined disc-fusion procedures, the neurosurgeon's incision simply is extended above and below. The dorsal spinous processes of L-4, 5 and S-1 are stripped of soft tissue by subperiosteal dissection to the lateral aspect of the articular facets, and the spinous process lamina and L-3, 4 articular facets are exposed with extraperiosteal dissection, taking care to leave the capsule intact over the L-3, 4 facet. All soft tissue is then removed from the L-4, 5 and L-5, S-1 facets and the lateral aspects of the pars interarticularis at this level down to the transverse process of L-4 and 5 and the superior aspect of the ala of the sacrum. After removal of the soft tissue, these areas are decorticated and an iliac cancellous and cortical bone graft placed in the gutter on the dorsum of the transverse processes, extending to the ala of the sacrum, filling this gutter to the level of the facets. In some cases the facets have been curetted and cancellous iliac bone grafts inserted in the denuded facets. Hemovac drainage is used in both the donor and recipient areas, and the wounds are closed in layers. This is a major surgical procedure, requiring careful blood replacement, and it requires a rather precise knowledge of the anatomy of the region, with particular reference to the vessels about the articular facets and the position of the nerve roots having their exit at these levels.

Operating time has varied from slightly over one hour, in which fusion without ex-

Table 1
LEVELS OF FUSION

L-3 to S-1	1
L-4 to S-1	18
L-5 to S-1	2
T-12 to L-1	1

Table 2
INDICATIONS

Failure of Previous Disc Surgery	15
Failure of Previous Fusion	2
Fracture	1
No Previous Operation	4

*Read at the meeting of the Tennessee Orthopedic Association, April, 1967, Memphis, Tenn.

ploration of disc or nerve root was performed, to four and one-half hours in combined disc exploration at several levels and L-4, S-1 lateral fusion. Lateral fusion will prolong disc exploration by approximately two hours. Average blood replacement during operation has been three units of blood.

Table 3 outlines postoperative management. One of the most striking features of

Table 3

POSTOPERATIVE MANAGEMENT

1. Remove hemovac in 48 to 72 hours.
2. Roll in bed on day 1.
3. Standing at bedside and walking as soon as pain permits (1 to 7 days).
4. Indwelling catheter if unable to void.
5. No brace unless patient has been using one and wants to wear it.
6. Day 10 to 14 discharge.
7. Sitting only for bathroom and meals for 4 to 6 weeks.
8. No lifting or bending until fusion appears solid.

this type of fusion is the relative lack of postoperative pain as compared to a posterior Hibbs fusion. It is postulated that perhaps de-enervation of the articular facets at the levels of fusion, as well as de-enervation of a portion of the paraspinal muscles is the reason for this difference. Some patients will have very little pain until approximately 7 to 10 weeks after the fusion, at which time they return with muscle spasm and accompanying lumbosacral pain. When this occurs, it generally lasts for only 4 to 6 weeks.

Patients are encouraged to roll in bed as soon as they recover from the anesthesia, and are allowed to stand at the bedside to void as soon as pain permits. Most patients are standing or walking by seven days postoperatively. Sutures are removed on the tenth postoperative day, and the patient is discharged as soon as he feels he can be managed at home, depending on his particular situation. The average discharge time has been 14 days.

Patients are seen in the office for x-ray examination 6 weeks postoperatively, and at 6 week intervals until the fusion appears solid and the patient is asymptomatic.

Complications have been outlined in table 4. One of the patients with thrombophlebi-

Table 4

COMPLICATIONS

Thrombophlebitis	2
Hematoma	3
Urinary Retention	1
Stitch Abscess	2
Deep Infection	
Fusion	0
Ilium	1

tis and one of the patients with urinary retention had a past history of similar difficulties at previous disc operations. None of the wound hematomas have required evacuation, all resorbing without difficulty. There was only one deep infection occurring at the donor area, and this cleared after excision of the sinus tract and antibiotic therapy.

Twenty-two patients have been followed for a period of 3 to 21 months. The patient with 3 months' follow-up is included only because the fusion appeared solid and the patient was asymptomatic.

Clinical results have been divided into 5 (Table 5) and x-ray results in 4 categories (Table 6).

Table 5

CLINICAL RESULTS

- I. *Excellent*—Complete relief from all symptoms and patient is able to return to original occupation. He is satisfied with results obtained. (8 patients)
- II. *Markedly Improved*—Relief from preoperative symptoms, although there may be some pain occasionally. Satisfied with results. (4 patients)
- III. *Improved*—Partial relief from symptoms. Patient had to change his occupation, but improved after operation. (7 patients)
- IV. *Not Improved*—Patient not working because of back disability. (3 patients)
- V. *Worse after operation*—Patient unhappy. (No patients)

Table 6

X-RAY RESULTS

- I. Fusion Bilaterally (8 patients)
- II. Fusion Unilaterally (7 patients)
- III. Bilateral pseudarthrosis
 One level (7 patients)
- IV. Bilateral pseudarthrosis
 Two levels (No patients)

Early results with the bilateral-lateral transverse process fusion are encouraging. This fusion can be performed in cases with large laminar defects, or after the removal of a loose posterior element in cases of

spondylolisthesis. Exploration of a post-fusion disc or nerve root can be performed without weakening the fusion. Solidity of the bony fusion is easier to evaluate by x-ray than the standard posterior fusion. The graft is close to the mechanical axis of motion of the vertebrae, rather than on the end of the see-saw posteriorly or anteriorly. There seems to be much less postoperative morbidity as compared to the standard posterior fusion. With careful hemostasis, blood loss need not be appreciably greater than that lost in a Hibbs fusion. It is possible to do this procedure at the time of re-

exploration of a disc space by extension of the midline incision.

Summary

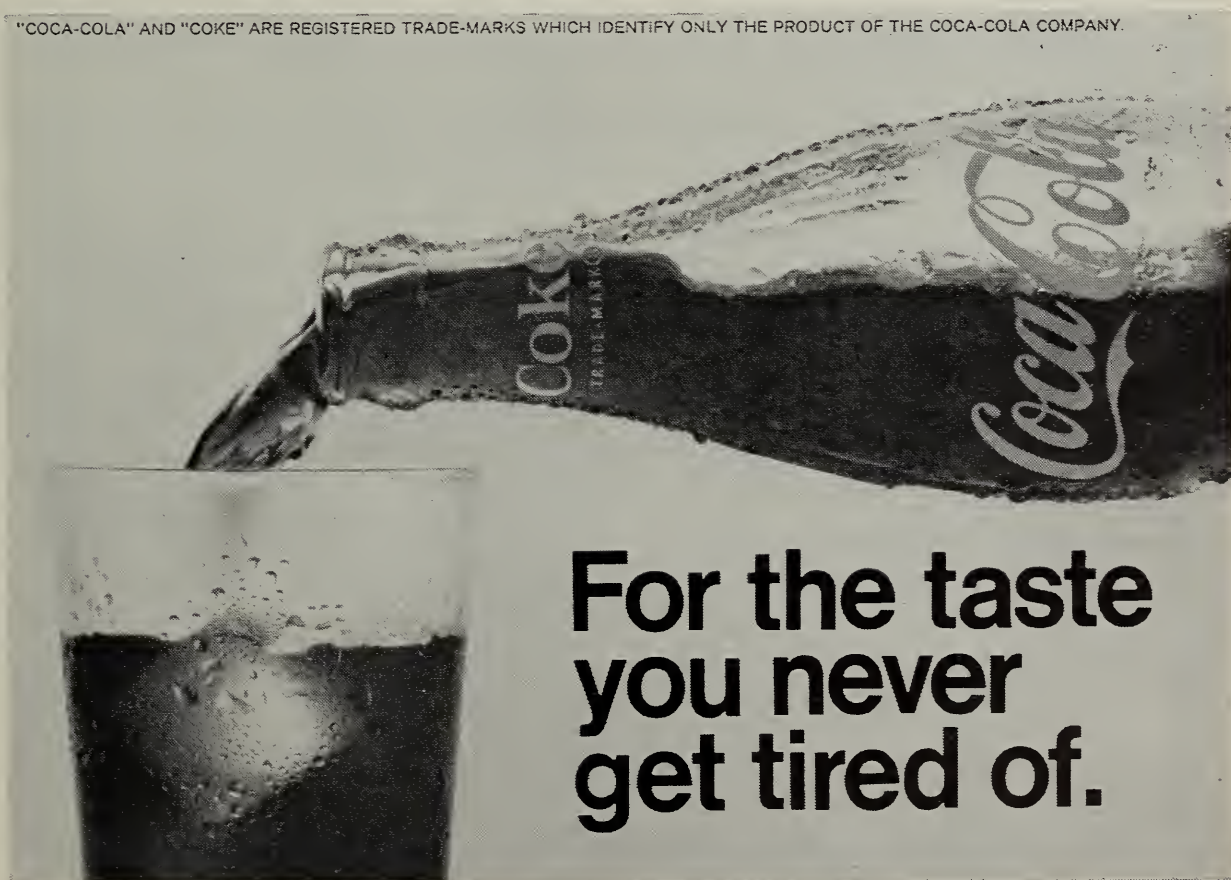
A preliminary report of a small series of bilateral-lateral transverse process fusions is presented. Short term results are encouraging.

Acknowledgement. Author wishes to express appreciation and gratitude to his confreres, Drs. Moore, Whittemore, Hay and Scott, for collaboration and assistance in the preparation of this paper and for allowing me to include their patients in this series.

188 So. Bellevue Blvd.,
Memphis, Tenn. 38103

* * *

"COCA-COLA" AND "COKE" ARE REGISTERED TRADE-MARKS WHICH IDENTIFY ONLY THE PRODUCT OF THE COCA-COLA COMPANY.



The author touches upon interesting aspects of congenital heart disease commonly not considered. These have to do with spontaneous "cure" and/or changes in the functional lesion. This knowledge has been advanced by the newer methods of studying hemodynamics.

Dynamic Properties of Cardiac Malformations: Observations Regarding the Natural History of Congenital Heart Disease*

FRANCIS A. PUYAU, M.D.,† Nashville, Tenn.

Recent major advances in diagnostic and therapeutic techniques have stimulated a redefinition of the natural history of congenital heart disease. The development of safe laboratory diagnostic techniques has allowed studies to be done repeatedly in the same individual while modern surgical methods have permitted drastic alterations in the natural course of many congenital cardiac lesions. As a result, concepts of congenital heart disease have changed from that of a rather static untreatable illness to the idea that congenital heart disease is a group of dynamic lesions amenable in many cases to significant definitive therapeutic efforts. Therefore, the natural history of cardiac malformations, like other illness, include the following possible outcomes for any patient:—He may, (1) live as a result of "spontaneous cure"; (2) live subsequent to medical and/or surgical treatment, the lesion altered; or (3) die as a result of the lesion or its complications.

The purpose of this article is to discuss three broad aspects of the natural history of congenital heart disease:—spontaneous cure, alteration by treatment, and modes of death.

I. Spontaneous Cure (Disappearances of Left-to-right Shunts)

Patent ductus arteriosus, ventricular and atrial septal defects have each been recorded as undergoing spontaneous closure. Of the three patent ductus arteriosus

might have been predicted to close spontaneously, since the dynamic action of the smooth muscle of this vessel has been appreciated since the work of Kennedy and Clark.¹ They established that patency of the ductus was altered by the level of oxygen in its environment. This peculiar quality which lasts a few days after birth accounts for the finding that hypoxic states at birth may result in patency of the ductus.² Closure during later infancy possibly is related to growth of the aorta and pulmonary artery with failure of growth of ductal tissues. Whereas spontaneous closure of a patent ductus in the adult probably is a result of fibrous construction.³

Spontaneous closure of muscular ventricular septal defects was first reported by Rowe.⁴ These were thought to occur as a result of hypertrophy of the thick muscular septum. Subaortic defects located in or near the thin membranous septum also apparently close spontaneously.⁵ The incidence of spontaneous closure of all ventricular defects has been estimated to be as high as 25 per cent. Since the ratio of subaortic to muscular defects is 9 to 1, it seems likely that the mechanism for hemodynamic improvement of most affected infants in the first two years of life is failure of growth of the defect with growth of the individual.^{6,7}

The most recent observations are related to spontaneous closure of atrial septal defects.^{8,9} These may represent spontaneous closure of shunts at the level of the foramen ovale rather than true atrial defects. Nevertheless, the principle of spontaneous cure has been extended to these lesions as well. In view of these observa-

* Contributed by request of the Middle Tennessee Heart Association.

† From the Department of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tenn.

tions, cautious application of surgical therapy is necessary.

II. Evolution to a Different Malformation following Medical or Surgical Therapy with Growth

Several examples of the gradual change of one lesion into another type are recorded, generally the result of an obstructive component being superimposed on the basic lesion. For example, progressive hypertrophy in the outflow tract of the right ventricle can convert a simple ventricular septal defect into a tetralogy of Fallot.¹⁰ Such a patient may develop cardiac failure during early life due to a large left-to-right shunt through a ventricular defect. Progressive hypertrophy of the right ventricular outflow tract can result in pulmonary stenosis, a balancing between left and right sided pressures, and a reduction in left-to-right flow through the defect. Further hypertrophy of the right ventricular outflow tract may lead to flow passing from right to left through the ventricular defect. Such a patient will have changed from "acyanotic" to "cyanotic" congenital heart disease.

Extensive use of shunting operations in the tetralogy of Fallot has resulted in the emergence of other lesions. Occasional patients develop such severe hypertrophy of the right ventricular outflow tract that the flow of blood through the pulmonary valve stops. Since the shunt between aorta and pulmonary artery remains open, the patient survives, but has acquired pulmonary atresia instead of pulmonary stenosis.¹¹

All palliative surgical procedures are designed to improve cardiac dynamics by altering cardiac anatomy. Such procedures include creation of an atrial septal defect in infants with transposition of the great vessels, banding (narrowing) of the pulmonary artery in infants with large ventricular septal defects, and valvotomy for aortic and pulmonary stenosis. By altering blood flow patterns (shunting), limiting growth of structures (banding), incising obstructive lesions (valvotomy), additional changes in cardiac anatomy and function are produced and are superimposed upon those of the basic lesion. These alterations of cardiac dynamics may change many of the clinical cardiac manifestations (physical findings, x-ray, EKG.). The heart will be further

modified by growth of the individual and by compensatory cardiac changes. A simple example is the development of aortic insufficiency following aortic valvotomy for aortic stenosis leading to dilatation and hypertrophy of the left ventricle. With rapid growth (*i.e.*, puberty), these changes are accelerated.

Hemodynamic worsening of certain cardiac lesions apparently occurs with increasing age of the individual due to superimposed structural changes in the heart. The pathologic changes may involve the myocardium (*i.e.*, fibrosis) or the valves (*i.e.*, calcification). Thus, a mild lesion in early life, hemodynamically insignificant, may worsen with age.

Aortic stenosis in the adult, once thought to be predominantly on a rheumatic basis, is now frequently recognized to be due to thickening and calcification of congenitally bicuspid aortic valves. The thickening and calcification developing in adulthood results in obstruction. Finally, any type of cardiac malformation which causes long-term pressure or work overload on either ventricle may result in severe myocardial damage. Under such circumstances simple correction of the original structural abnormality is unsafe, because the functional capacity of the myocardium is lost forever. This accounts frequently for the increased morbidity and operative mortality on adults with congenital cardiac disease, and emphasizes the need for operation during childhood.

III. Death of the Patient

The entire aim of cardiac therapy, both medical or surgical, is to prevent death. However, it is important to develop an understanding of the dynamics of death in patients with congenital heart disease. Death can occur in different ways, and these modes can be broadly categorized depending on the type of lesion. Appropriate medical therapy frequently can alter the course at least temporarily.

Sudden or unexpected death occurs much less frequently in children with congenital heart disease than in adults with acquired cardiac disease. The high incidence of atherosclerotic heart disease with sudden death due to coronary thrombosis accounts for this frequently observed tragedy in older

subjects. Sudden death below age 15 is usually caused by ventricular arrhythmias and is predominantly limited to children with aortic stenosis, cardiomyopathies such as endocardial fibroelastosis, and Ebstein's anomaly. Parents frequently need reassurance that this dramatic event is not likely to occur in children with the common cardiac anomalies, such as ventricular and atrial septal defects or patent ductus arteriosus.

Death due to cardiac failure is the most common mode of exitus in infants with large left-to-right shunts, severe obstructive lesions and the more complicated bidirectional shunting lesions. These patients usually have symptoms related to left sided failure (i.e., pulmonary congestion) such as rales, dyspnea, chronic cough, recurrent "bronchiolitis" or recurrent "pneumonia." Right sided cardiac failure leads to edema, hepatomegaly, anorexia, and usually severe malnutrition. Such symptoms are usually present for days, weeks or months before the patient expires and frequently can be altered by medical treatment.

Death occurs as a result of hypoxic spells in cardiac malformations with large right-to-left shunts, such as the tetralogy of Fallot, pulmonary atresia, or tricuspid atresia. In such a spell the infant becomes intensely cyanotic, breathes rapidly and deeply, cries vigorously, and is in obvious distress. The symptoms intensify until the patient loses consciousness. Occasionally such an episode will result in death. These episodes are not due to congestive cardiac failure, but are the result of reduction in pulmonary blood flow. Patients with severe cyanotic congenital heart disease have a large intracardiac right-to-left shunt and the degree of cyanosis is related to the relative amounts of systemic and pulmonary blood flow. Anything which restricts pulmonary blood flow (i.e., temporary increase in the severity of pulmonary stenosis) increases the amount of venous to arterial shunting and intensifies cyanosis. In addition, cyanosis is aggravated by exertion (crying) which increases the demand for oxygen at the tissue level. Knowledge of the pathogenesis of these cyanotic spells is of great importance since their treatment is not digitalis but morphine sulphate, oxygen, and

knee-chest positioning. These episodes are responsible for most of the deaths of infants with severe cyanotic congenital heart disease rather than congestive heart failure.¹² A possible exception is the infant with transposition of the great vessels who may have hypoxic episodes coincident with signs of congestive heart failure and needs treatment for both.

Death from complications. A variety of complicating problems cause the death of patients with congenital heart disease. The predominant complication is infection. The patients may die from pneumonia, bacterial endocarditis, or brain abscess.¹³ Pneumonia is particularly common in patients with lesions that cause left heart failure, such as mitral valve anomalies, large ventricular septal defects or endocardial fibroelastosis. Subacute bacterial endocarditis is rare in patients with atrial septal defects, but is common in patients with ventricular septal defects, patent ductus arteriosus or tetralogy of Fallot. Brain abscesses occur in about 10% of patients with intracardiac right-to-left shunts and frequently result in death. Since infection plays a major role in the difficulties experienced by cardiac patients, early diagnosis and treatment must be stressed. Any patient with congenital heart disease who becomes febrile must be considered to have a serious infection until appropriate clinical and laboratory evaluation prove otherwise.

Certain types of congenital heart disease have defied all forms of treatment and death is inevitable. One such type is the hypoplastic left heart syndrome in which the mitral and/or aortic valves are hypoplastic or atretic, and the left ventricle is hypoplastic or absent. These infants frequently die in the first few days of life. A variety of other very complicated lesions are basically untreatable. However, the general patterns of death are as described previously, being due to cardiac failure, hypoxia, or an infectious complication.

Summary

This article has stressed three new aspects of the natural history of congenital heart disease, which are the result of the extensive use of repeated physiologic and clinical observations. A cardiac malforma-

tion may, (1) undergo spontaneous cure such as closure of a shunt; (2) change into another malformation as the result of medical or surgical treatment which prolongs life, or (3) cause death of the patient in one of a variety of ways.

The present state of our knowledge emphasizes the fact that congenital cardiac lesions are very dynamic abnormalities. Not only is our ability to deal with the various lesions changing, but the lesions themselves may change, necessarily altering treatment.

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Even though the ovaries are left in place, the authors believe that total hysterectomy in the premenopausal woman is followed by a syndrome differing from the symptomatology of the menopause. The use of the colpocytogram confirms deterioration of ovarian function to menopausal levels. Estrogens, especially parenterally, control the syndrome in most instances.

Ovarian Function After Hysterectomy As Evaluated By Colpocytograms*

J. R. REINBERGER, M.D., and W. F. MACKEY, M.D., Memphis, Tenn.

Since the adoption of the colpocytogram as a routine screening procedure in our office, we have become much more cognizant of the fate of ovarian function in our patients. We have been especially interested in one group of patients that have always been difficult to manage. The group to which I refer are women between 20 to 40 years of age, in whom pelvic surgery has been performed. All of these have had total hysterectomy and in some an associated removal of one or both tubes and ovaries. Thus, in this group of women of 20 to 40 years of age, one or both ovaries were left in at time of the last operation.

We have been obtaining colpocytograms in these patients when they present themselves for routine check-up examinations or when they come in for various complaints.¹ We have been amazed as to the fate of the ovarian function, as determined by,—(1) clinical evaluation and symptoms of the patient, and (2) the findings of the colpocytogram. We had thought for years that the ovaries of such patients functioned until about menopausal age. In our series we have not found this to be true. In fact, from one to four years after their last operation the colpocytogram will show menopausal levels. This finding will be accompanied by subjective symptoms which are not classically menopausal, such as hot and cold flashes. Rather, they tend to be in an indefinite group as tiredness, easy fatigue, nervousness, depression, headaches, muscle aches and pains, loss libido, crying spells, dry vagina, etc. Almost always there is no anemia and the thyroid function is normal.

When a diagnosis is made of low ovarian function, these patients are placed on one or

both oral and intramuscular estrogen therapy. Almost always the response has been dramatic. The patients are relieved of their symptoms and a sense of well-being returns. We have found, also, that oral therapy is not nearly as effective as the intramuscular route in this group of patients. Some of these patients apparently do not seem to metabolize or absorb oral estrogens. Almost all state they feel much better upon injections. In fact, we arrange for them to give themselves injections at home just as a diabetic uses insulin. We have also found that these patients need and take more and larger doses of estrogen than the usual menopausal or postmenopausal patient. Is this due to the fact that these patients are much younger and actually need more estrogens? Does stress metabolize and use up estrogen more rapidly? We have noticed in times of

Table I
PATIENT SERIES

	No.	Percentage
Total number of surgical cases.....	37	
Surgical cases with <i>one</i> ovary		
left in place.....	16	43.2
Surgical cases with <i>both</i> ovaries		
left in place.....	21	56.8
Patients on oral estrogen therapy		
alone at time of cytogram.....	15	40.5
Patients on oral and intramuscular		
estrogen therapy at time of		
cytogram	3	8.2
Patients on no estrogen therapy		
at time of cytogram.....	19	51.3
Patient's age at time of operation		
(20-30 yrs.)	13	35.1
(30-40 yrs.)	22	59.5
(40-42 yrs.)	2	5.4
Time lapse from operation to		
obtaining of cytogram—		
(0-2 yrs.)	13	35.1
(2-4 yrs.)	17	45.9
(4-6 yrs.)	3	8.2
(6-8 yrs.)	4	10.8

*Read at the meeting of the Tennessee Obstetrical and Gynecological Society, April 14, 1967, Memphis, Tenn.

stress that these patients need more estrogen. The following cases illustrate 37 women picked by random sampling to demonstrate the observations we have just mentioned. (Tables 1-3.)

Table 2		
SYMPTOMOLOGY		
	No.	Percentage
1. Fatigue—exhaustion—tired	25	67.5
2. Nervous	24	64.8
3. Muscle aches and pains—arthralgias	13	35.1
4. Headaches	13	35.1
5. Depressed	10	27.0
6. Dry or uncomfortable vagina	10	27.0
7. Hot or cold flashes—night sweats	8	21.6
8. Painful bladder—pelvic pressure or discomfort	7	18.0
9. Crying spells	7	18.0
10. Vertigo	6	8.1
11. Loss of libido	3	8.1
12. Collapse—syncope	3	8.1
13. Tender breasts	3	8.1
14. Nausea	2	5.4
15. Globus hystericus	2	5.4
16. Pruritus	2	5.4
17. Paresthesia—tingling—numbness	2	5.4
18. Palpitations	1	2.7
19. Insomnia	1	2.7

Table 3		
RESULTS OF CYTOGRAMS		
	No.	Percentage
Within M.I. range		
0-10/100-90/0-5	16	43.2
10-20/90-80/0-5	8	21.6
20-40/80-60/0-5	8	21.6
40-60/60-40/0-5	2	5.4
60-80/40-20/0-5	3	8.2

1st Case in 40-60/60-40/0-5 Group	This may be explained by the fact that the patient had been taking weekly injections of estrogen. However, she had had none for 6 weeks prior to cytogram.
2nd Case in 40-60/60-40/0-5 Group	No explanation except 7 months later the M.I. was 12/88/0 and 12 months later 11/89/0
1st Case in 60-80/40-20/0-5 Group	High at the first cytogram but dropped to 23/77/0 in 1 year even though on oral hormone therapy.
2nd Case in 60-80/40-20/0-5 Group	The patient was using di-enestrol vaginal cream; 17 months later the reading was 24/75/1—on stilbesterol orally 0.5 mg. daily.

3rd Case in 60-80/40-20/0-5 Group The patient had been on intensive mouth and parenteral estrogen for 4 months.

Discussion

In analyzing our 37 cases of premenopausal hysterectomies, we note the following points:

- (1) One to four years after hysterectomy with the conservation of ovarian tissue, the patient presents herself to the doctor with a group of nonspecific complaints. These complaints seem to be indicative of ovarian or estrogen deficiency.
- (2) The colpocytogram M.I. almost always shows estrogen deficiency, even to parabasal cells or postmenopausal smears.
- (3) The colpocytogram M.I. sometimes indicates a higher level of estrogen because the patient had already been taking estrogen orally or by the parenteral route.
- (4) The colpocytogram M.I. shows a marked increase of estrogen effect, after treatment has been instituted.
- (5) Clinical improvement of the patient is very dramatic. The vague symptoms are relieved and the person has the return of a sense of well-being.
- (6) Even with high levels of estrogen, as determined by the colpocytogram, the patient may be symptomatic and will be benefited by estrogen therapy. We do not hesitate to begin estrogen treatment and determine results by clinical observations.
- (7) There is no problem of the continuation of estrogen therapy, since once these patients experience the great benefit of treatment, they do not hesitate to continue receiving it.
- (8) Since our observations on the rapid decrease in ovarian function, after hysterectomy, we have become more radical in the removal of any questionable ovarian tissue in the young woman. This avoids subsequent operations and, as we all know, many times a normal appearing ovary will be very painful or become cystic. It seems as if the uterine blood supply to the ovary may be more important than that from the ovarian artery, otherwise why does the ovary decline in its output so rapidly?
- (9) No differentiation can be shown on the colpocytogram as to the presence of one

or both ovaries. The retention of the tubes with the ovaries does not seem to prolong ovarian function. The M.I. is equally low on each.

Conclusions

(1) Ovarian estrogen output in young women after hysterectomy, even with conservation of ovarian tissue, decreases markedly in 1 to 4 years to menopausal or postmenopausal levels as determined clinically and by colpocytogram. Thus, removal of the uterus markedly interferes with the normal expected length of ovarian function.

(2) These patients present a vague group of symptoms and findings which are relieved by estrogen therapy in very dramatic fashion.

(3) The response of the patient can be followed both clinically and by colpocytogram, but the colpocytogram does not always agree with the clinical impression.

(4) Parenteral estrogen therapy is much

superior in clinical results in this group of young women than when given orally, in spite of the fact that most postmenopausal patients are managed by oral treatment alone and on much smaller doses.

(5) Larger doses of estrogen are required in this young group than we had thought previously.

(6) We can not explain the need for larger doses of estrogen by the patients in this study, nor can we explain positively the rapid decrease in ovarian function after hysterectomy.

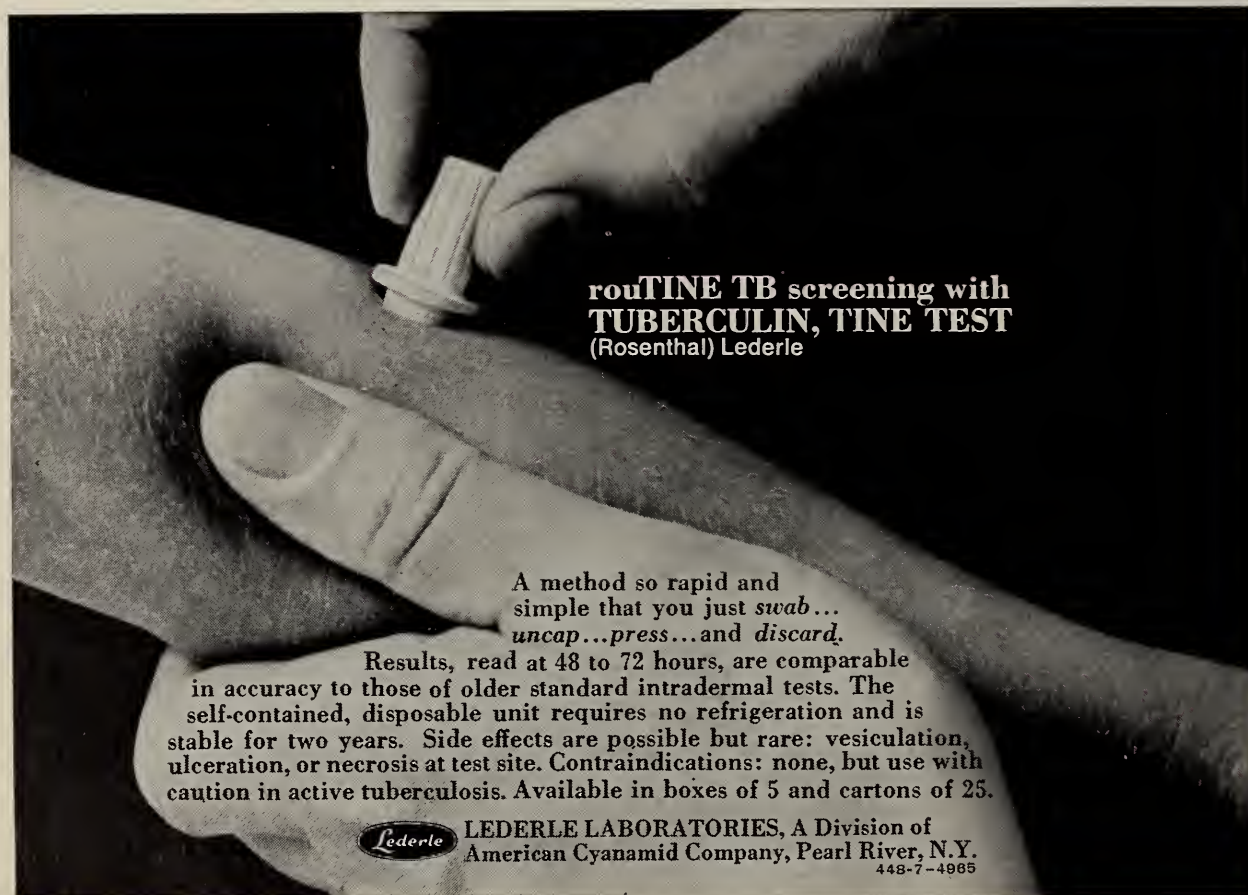
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Acknowledgement. We wish to heartily thank Dr. T. C. Moss, pathologist, who has read all the colpocytograms, and whose advice and council has been of great help to us in preparation of our paper.

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STAFF CONFERENCE

Subarachnoid Hemorrhage Vanderbilt University Hospital*

DR. WILLIAM MEACHAM: The patient to be presented today represents a problem that is common to the disciplines of internal medicine, neurology, neurological surgery, and occasionally pediatrics. Dr. Robert Dickens will give the case history.

DR. ROBERT DICKENS: The patient is a 62 year old male who was well until 36 hours before his admission here when he developed a sudden and severe occipital headache while doing some heavy lifting. At his local hospital he was found to have mild cervical rigidity, some nausea, and was slightly obtunded, but was arousable and oriented. A lumbar puncture was performed which revealed grossly bloody spinal fluid. Transfer to Vanderbilt University Hospital was then effected.

His admission examination revealed nothing of neurologic significance and only minimal cervical rigidity. He was cerebrating well and was virtually free of headache. A repeat lumbar puncture was performed and revealed no increase in CSF pressure and rather heavily xanthochromic fluid. Bilateral carotid arteriograms were performed under local anesthesia and revealed a normal cerebral vasculature with no source of bleeding detected. He continued to improve symptomatically and was discharged within the week to his home with instructions to remain on sedentary activities.

Two days after returning to his home, he again developed a sudden occipital headache which he described as identical to the original episode and was again associated with no localizing neurologic signs other than an increase in cervical rigidity and some increase in drowsiness and headache.

For ten days he was left in bed and treated only with analgesics for headaches, by which time his spinal fluid was clear and only faintly xanthochromic. A left peripheral seventh nerve palsy developed overnight but was not thought to be associated with his subarachnoid hemorrhage. Angiograms were then repeated (retrograde brachial and left carotid) which revealed a terminal basilar artery dilation, not thought to be an aneurysm, and an anterior communicating artery aneurysm, very irregular in contour which was interpreted as being the offending lesion. In retrospective study, this lesion could not be identified on the original arteriograms.

The aneurysm was exposed through a bifrontal craniotomy and obliterated by two spring clips placed across the base occluding the anterior com-

municating artery at the same time. Each anterior cerebral artery was preserved. His post-operative course has been benign although he has been rather confused and disoriented and poorly motivated thus far, although he is quite free of neurologic deficit otherwise.

DR. MEACHAM: This patient typifies a very challenging and difficult clinical problem that occurs with great frequency. The patient with a spontaneous subarachnoid hemorrhage immediately becomes an individual whose survival is in jeopardy and, further, may sustain a severe neurologic handicap if survival is assured. It is generally accepted that the majority of such cases occur as the result of a rupture of a saccular arterial aneurysm, usually located in the region of the circle of Willis, but there are, of course, other sources of bleeding such as arteriovenous malformations, tumors and hypertensive vascular accidents.

Since critical decisions must be made in all such cases, the attending physician must appreciate and face up to the fact that any such patient surviving his initial bleeding episode is in constant danger of re-bleeding, perhaps fatally, at any time thereafter. Therefore, we must be prepared to answer several important questions concerning the management of the subarachnoid hemorrhage in the acute phase, in the convalescent phase, the proper timing for diagnostic investigation of the bleeding source, and the individualization of the proposed method of definitive treatment, if any.

DR. PETER NEW: What is the preferred method of managing the patient with acute subarachnoid hemorrhage during the first forty-eight to seventy-two hours?

DR. BERTRAM SPROFKIN: During the first two or three days of hospitalization the patient with acute spontaneous subarachnoid hemorrhage should be kept flat in bed and disturbed as little as possible. There is general agreement that angiography should be delayed until the patient's condition has stabilized. (Perhaps I should qualify the phrase "general agreement" to indicate that this applies generally to the neurosurgeons and the neurologists who attend this conference.) Mild analgesics, such as codeine in doses of 32 to 64 mg., may be administered for the relief of headache. Where possible

*From the Department of Neurosurgery and the Department of Neurology, Vanderbilt School of Medicine, Nashville, Tennessee.

opiates should be avoided. Occasionally a surgical approach might be considered during the acute aspect of this disorder if there is evidence of a large intracerebral hematoma which must be removed as a lifesaving measure. The controversy about the ultimate treatment of acute subarachnoid hemorrhage due to a ruptured aneurysm continues with good physicians aligned on either side of the issue. If surgical therapy is contemplated, angiography should be performed in order to determine not only the site of the aneurysm which has bled, but the presence of other aneurysms and also the adequacy of the collateral circulation.

It was once customary to keep the patient in a darkened room and hover over him so that recurrent hemorrhage due to any sudden strain might be avoided. In the patient who is rational, this type of attention generally increases apprehension enormously. It might be appropriate to administer mild sedation to the extremely apprehensive patient. The administration of enemas or any procedure involving severe strain, should be postponed. The vital signs and the patient's pupils should be observed at frequent intervals. It is important to maintain a high degree of alertness to a changing clinical situation but to avoid alarming the patient. This requires considerable quiet efficiency and tact on the part of all the patient's attendants.

DR. MEACHAM: We are frequently asked about the most appropriate time to carry out the angiographic surgery after a bleeding episode. Our policy is to perform this study when the patient shows good clinical recovery from the effects of the initial hemorrhage, which usually means that the patient is conscious, or occasionally when consciousness is returning, signifying some progressive reduction in the degree of cerebral angiospasm associated with the bleeding episode. It is our impression that the angiographic survey does not carry great risk, in fact, only minimal risk and that it should be done in all cases. However, if performed too soon, it is possible that satisfactory opacification of the cerebral vasculature might not occur due to cerebral angiospasm and also to increased intracranial pressure. The case presented

here illustrates failure of an aneurysm to fill even several days after the initial hemorrhage, and the aneurysm was, in fact, only demonstrated after the second bleeding episode. It is wise to repeat the angiograms at a later date if the initial study is negative as you can see from the arteriograms in our present case (Fig. 1).

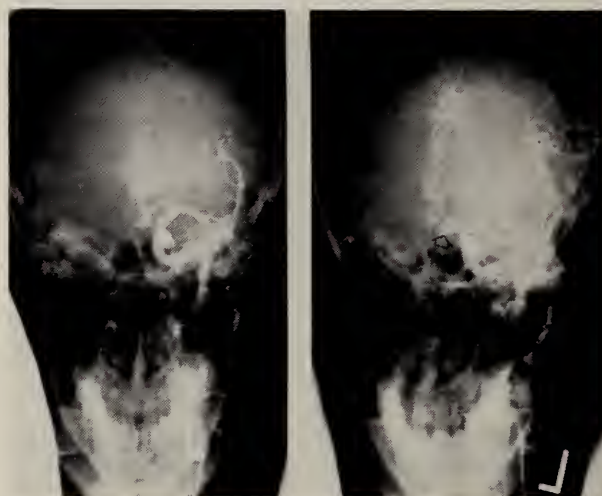


FIGURE 1

STUDENT: In what percentage of cases of subarachnoid hemorrhage will adequate arteriographic study reveal no lesion responsible for the hemorrhage?

DR. CULLY COBB: Often we think of subarachnoid hemorrhage as being almost synonymous with the diagnosis of either aneurysm or arteriovenous malformation of the brain. Actually the most common cause of bloody spinal fluid is head injuries. Since patients with a spontaneous hemorrhage may fall, this may present a difficult differential diagnosis. Some other causes of subarachnoid hemorrhage such as cerebral infarction, blood dyscrasias, and meningeal inflammation or encephalitis would not be expected to show changes in the angiograms. Neoplasms in both the brain and spinal cord may bleed into the subarachnoid space and there are vascular malformations of the spinal cord which would not be shown by cerebral arteriographic studies. These last can be shown at times by aortograms.

Most of these conditions would not produce the clinical syndrome associated with spontaneous subarachnoid hemorrhage from aneurysms and vascular malformations. Limiting the discussion to these con-

ditions, there is still incomplete detection by angiography. Estimates that between 50 and 75% of aneurysms can be demonstrated by the vascular studies have been published. With present day technique, the percentage is probably 75% or better. Generally the more severe the syndrome, the more likely a positive finding. On the other hand, the very mild or questionable syndrome may not lead to abnormalities in the arteriograms.

Even though an aneurysm is present, the arteriogram may be negative if the aneurysm is filled partly or wholly with a clot or if its size and pattern make it difficult to separate from other vessels in the x-ray. We have had the experience of demonstrating an aneurysm with a succeeding study several weeks later when the first studies were negative. For this reason, one should always follow the case closely and consider repeating the studies if the angiograms are negative.

There is general agreement that the likelihood of a fatal or crippling secondary hemorrhage is much less in patients with no demonstrable lesion.

STUDENT: Of what value is lumbar puncture in the treatment of a patient with a ruptured saccular aneurysm?

DR. WILLIAM CLARK: In the patient who has had a subarachnoid hemorrhage, we expect a gradual resolution of the spinal fluid abnormality, namely, the presence of gross blood. This occurs first in the breakdown of red blood cells, which thereby produces a xanthochromic fluid, high in protein content. There is then gradual absorption of the protein, and the fluid finally returns to normal. Serial lumbar punctures in patients who have had acute subarachnoid hemorrhages will, therefore, demonstrate this resolution. Likewise, if the patient has a second episode of bleeding, this will be reflected in the spinal fluid in the form of an increase in red blood cells, rather than the gradual decrease which we expect as noted above. The lumbar puncture is, therefore, of value in detecting secondary episodes of hemorrhage.

A further value of lumbar punctures following the initial diagnostic tap is for the reduction of increased intracranial pressure,

which apparently results from blockage of absorptive mechanisms by the blood in the subarachnoid spaces. This very frequently is of considerable symptomatic value, since it will usually relieve headaches caused by the increased pressure.

DR. MEACHAM: Besides the non-operative method of management as described by Dr. Sproufkin and Dr. Clark, there are many methods of treating such lesions in vogue today, but which are subject to the particular interest of the surgeon involved and which reflect, in large measure, his own capabilities with a particular technique. It is also very obvious that success or failure with any given surgical technique is influenced heavily by the condition of the patient at the time of surgery, his degree of recovery from the primary hemorrhage, the adequacy of arterial perfusion of the brain, and the good fortune or lack of it that befalls the surgeon in the performance of these rather risky operative procedures.

DR. JOE CAPPS: Saccular aneurysms in the anterior portion of the circle of Willis may be influenced by reducing the intraluminal arterial pressure by employing the classical Hunterian operation of proximal ligation of the parent artery. In this situation the internal carotid or common carotid artery may be ligated by a method of slow occlusion by an obliterating clamp, which is gradually closed, or by a method of acute arterial ligation. In either case the surgeon must be alert to the possibility of releasing the clamp or ligature in the event of cerebral ischemia.

These are methods that we have employed occasionally for aneurysms so situated that a direct attack on the lesion itself did not seem feasible or, in certain catastrophic situations in which a patient continued to deteriorate after his primary hemorrhage and a direct intracranial approach could not be made under favorable circumstances. It is impossible to assess the value of this operative procedure with quantitative accuracy. Certainly, it is a "safer" operation than the intracranial approach, but there remains unanswered the question of the long-term effect on the aneurysm, the chances for subsequent bleeding episodes, and the risk of cerebral ischemia. Only

through the long-term evaluation of a large number of comparable cases so treated will the statistical and clinical values be known, but this is likewise true of all the other methods of treatment of these lesions.

DR. MEACHAM: Dr. Karl Jacob has recently employed a method that is gaining in neurosurgical popularity in this country and which possibly holds great promise for certain types of aneurysms that we have heretofore considered "inoperable." I believe that we have used this technique about eight or ten times in the past three years with success.

DR. KARL JACOB: The method in question is one which can appropriately be applied to any aneurysm that can be surgically exposed and could have been employed in the case presented today. The aneurysm is exposed via the preferred cranial approach and is then covered with three or four separately applied coats of synthetic latex, each coat being dried under a stream of air or other gas (CO²). A final coating of epoxy plastic is then applied which "sets" in a few moments, thus "reinforcing" the aneurysm and the entering and emerging parent vessels and branches. We have reserved this method for the most part to those aneurysms which could not be safely clipped or which were apparently aneurysmal dilatations in continuity on a major vessel which could not be sacrificed.

The methods of pilo-injection (injection of hog bristle), thrombosis by electrically influencing the polarity of the aneurysmal wall and the induction of thrombosis by magnetic attraction of finely divided iron particles, are currently being investigated in other centers but have not been employed here.

DR. MEACHAM: To sum up, then, this patient has presented us with the usual problem of initial care and diagnosis of the cause of a spontaneous subarachnoid hem-

orrhage. At what was considered an appropriate and ideal time, angiograms were performed and no lesion responsible for the bleeding was disclosed. In this situation, no treatment could be recommended other than the admonition to remain on a regimen of sedentary activities and to avoid unusually stressful situations. At a later date, a repeat angiographic study was to be performed but this plan was interrupted by a second and more serious bleeding episode. An aneurysm of the anterior communicating artery was disclosed by the second angiogram and we were impressed with the fact that it appeared to be so located that it would lend itself to a direct attack. As you have heard, this was performed in a manner that was considered successful by obliterating the aneurysm and preserving the major arterial supply. In our experience when this can be accomplished, it constitutes the most effective and certain means of cure of the aneurysm. When major vessels must be occluded in order to control hemorrhage from the aneurysm which ruptures when surgically exposed, there is great risk to life as well as to the functioning integrity of the nervous system. Therefore, in every instance the clinician must soberly weigh all possible eventualities and possible risks involved in planning for and executing the appropriate therapeutic measures in such cases. Certainly additional knowledge and technical know-how will come about with increasing experience of the individuals concerned as well as the pooling of useful statistical data from the results of cooperative studies being carried on in many clinical centers. The reevaluation of patients with successfully treated intracranial aneurysms by repeated long-term angiographic study will offer a much needed facet of information concerning the "cured" aneurysm.

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CLINICOPATHOLOGIC CONFERENCE

Amyloidosis

Baptist Memorial Hospital

This 50-year-old lady was admitted to Baptist Memorial Hospital on July 9, 1966 because of several syncopal episodes occurring in the preceding 3 weeks. There were no known seizures though she did have urinary incontinence. Severe headache accompanied the initial attack, but she had had no headaches subsequently. She had progressive edema of the right lower extremity beginning 6 weeks previously. There was a history of diabetes-mellitus well-controlled by diet in the past. At the time of admission on July 9, the B.P. was 140/80. Physical examination was unrevealing. The edema of the right leg had apparently subsided.

Lumbar puncture on July 10 showed an opening pressure of 300 mm. The patient seemed somewhat tense and could not relax so that the pressure would fall below this level. The cerebrospinal fluid protein was 37 mg., sugar 108 mg. (blood sugar 208 mg.), no cells, and VDRL was negative. India ink preparation was negative. Acid-fast smears and culture were negative. The hemogram was normal on this admission. Urine showed a specific gravity of 1.015, 1+ protein, 1 to 2 RBC., 4 to 6 WBC. per high power field. PUN. was 15 mg. per 100 ml., cholesterol 174 mg., serum calcium, PBI., and uric acid were normal. Latex agglutination was negative. Skull films were normal. EKG. showed multiple premature ventricular beats, ST-T wave abnormalities, low voltage QRS complexes, and evidence of an old inferior wall infarction. There was delayed precordial transition suggestive of an old anterior infarct as well. The EEG. was normal. She was discharged on a diabetic diet on July 16.

On August 7, she was readmitted because of a spell of weakness and disorientation. At this time it was learned from her history that she did have chronic exertional dyspnea and in the interval since her previous admission and that she had been digitalized with digoxin. Following digitalization she had developed many premature auricular contractions, as well as nausea, and there was also a recurrence of edema. On August 7, her apical rate was 130. There was 3+ pitting and edema of the legs. The lungs were clear. The heart seemed slightly enlarged. Liver and spleen were not felt. A portable chest film on this day appeared to show some cardiac enlargement and increased markings at both bases.

An EKG. showed atrial fibrillation with a ventricular rate of 140 per minute. The previously reported abnormalities were also noted.

On August 8, urinalysis showed a specific grav-

ity 1.008, 2+ protein, 0 to 2 WBC. per high power field, and no casts. The PUN. was 18 mg. on this date. Electrolytes were normal. SGOT was 18 units, SGPT was 17 units, and LDH was 450 units on August 8. The alkaline phosphatase was 11 King Armstrong units.

Digoxin was discontinued and the patient was begun on Kaon which was discontinued when her serum potassium reached 6.0 mg. Later serum potassium levels were within the normal range. By August 8, the heart rate was 88, and she was improved. She then developed a variety of arrhythmias including atrial tachycardia with 2:1 block, A-V nodal rhythm, paroxysmal atrial tachycardia without block, and auricular fibrillation. She was treated with procainamide (Pronestyl) without effect. She had periods of hypotension requiring metaraminol (Aramine). On August 14, 1966 the PCV. was 50.5%, WBC. 26,500 with 86% P.M.N.; 10% bands, 4% monocytes.

After temporary improvement her condition worsened. The SGOT. rose to 330 units and LDH. to 1220 units on August 15. On August 16 the SGOT. was 2130 units and LDH. was 5200. On August 16 the PUN. was 25 mg. She became febrile for the first time on August 16 and had daily spikes to as high as 103° until August 21, when she became afebrile following the use of Kantrex and colymycin for treatment of gram-negative urinary tract infection. She remained afebrile throughout the remainder of her life.

On August 20, her bilirubin was 6.8 mg., with 3.5 mg. being direct and 3.3 indirect. The SGOT. had fallen to 122 units on this date. L.E. preparations were negative. On August 22 the bilirubin had risen to 8.8 mg.; the SGPT. on this date was 210 units; and the alkaline phosphatase 26 King-Armstrong units. By August 25, the bilirubin had risen further to 13.4 mg., the alkaline phosphatase was now 14 King-Armstrong units and the SGPT. 140 units. Cephalin flocculation was 4+ in 48 hours. On August 22 the PUN. had risen to 38 mg. and on the 25th was 75 mg. per 100 ml. Portable chest films on August 17, and the 20th, showed no obvious changes or notable cardiac enlargement.

The patient was given diphenylhydantoin (Dilantin) intravenously and later, when it became apparent that digitalis intoxication was not present, she was given lanatoside C (Cedalanid) to attempt to control multiple arrhythmias. These were only temporarily successful. She also received levarterenol (Levophed), metaraminol (Aramine), and isoproterenol (Isuprel) intermittently, and she had periods of intermittent hypotension which appeared to be related to her multiple arrhythmias. She became more somnolent and nauseous. Edema became more generalized and marked. The urinary output, however, remained good. Lumbar puncture on August 18 showed an opening pressure of 220 mm. The fluid was slightly xanthochromic. The cerebrospinal protein was 58 mg. and sugar 110 mg. per 100 ml., and there was no increase in cells.

*From the Department of Medicine and Pathology, Baptist Memorial Hospital, Memphis, Tenn.

On August 25, 1966 the patient developed cardiac arrest. This responded temporarily to resuscitative measures, but later in the day she developed ventricular tachycardia followed by asystole and expired.

DR. THOMAS N. STERN: The patient for discussion today presented with a number of fainting episodes. The first thing that I would like to do is put aside primary neurologic abnormality. There are several reasons for doing so. First, the patient gives no history of seizure activity with the syncope. The findings of the two lumbar punctures are not impressive, the high pressure probably being secondary to tension and the xanthochromia and slight protein elevation not being very important. Finally, I believe that a neurologist rather than a cardiologist would have been invited to discuss this patient had the problem been primarily above the neck.

As a cardiologist, syncope makes me think first of vasovagal stimulation. I believe that we may discard this possibility very quickly, if for no other reason than that we do find definite evidence of heart disease. The most common reason for syncope related to organic heart disease is some sort of dysrhythmia, either a lack of heart beat or a rapid and inefficient heart beat. We do find on the electrocardiogram that dysrhythmia was present. The patient showed multiple ventricular premature contractions which probably were all from one focus. Later much more complicated rhythm abnormalities were present.

The electrocardiogram was indeed the most significant study during the patient's first hospitalization. In addition to the dysrhythmia there were ST-segment and T-wave abnormalities. The patient was presumably not on digitalis at the time so these probably represent intrinsic heart disease. Further, there was low voltage of the QRS complexes. Low voltage may be found in otherwise normal individuals. It may be due to obesity or emphysema. However, it may be an important sign of heart disease. It may be the first clue to myxedema, but it would appear that this patient did not have myxedema, at least from the clinical description. Furthermore, the PBI. was normal and the cholesterol 174 mg.

The EKG. was also interpreted as show-

ing old anterior wall infarction with delayed precordial transition. I would agree with the findings as described by the electrocardiographer but would disagree with their significance in a very important way. I think that as electrocardiographers we wear two hats. Most of us are not pure electrocardiographers. We are also cardiologists or clinicians, and we tend to read EKG's. in terms of clinical diagnosis rather than in terms of EKG. findings. The specific EKG. findings in this case are absence of R-waves and presence of a Q-wave over the anterior precordium and to some extent the inferior surface of the heart. These findings do not necessarily mean myocardial infarction, although if you made a diagnosis of infarction on this basis alone you would be correct most of the time. Actually, the only inference that can be drawn with reliability from these findings is that there is no electrical current produced by viable muscle in this area. It does not specifically indicate myocardial infarction which is a very particular type of muscle death. Absent R wave may be due to myocardial tumor. It may be seen in myocardial necrosis due to chemical agents, due to trauma, or due to some other diseases that we will discuss a little later. The conclusion is then that in clinical practice this is probably due to myocardial infarction, but we should never forget the other 5% of cases where a different disease process is present.

Following discharge from the hospital she did poorly and was re-admitted some 3 weeks later. The more adequate history at that time revealed that the course of the disease was more chronic than first indicated. Further she had been digitalized in the interval between hospitalizations. Again the electrocardiogram gives the most helpful diagnostic information. It showed atrial fibrillation with a ventricular rate of 140. Since she was on digitalis and was also nauseated this may possibly have been due to digitalis intoxication. Dr. Dan Copeland and I reported a series of patients with digitalis intoxication a number of years ago in whom atrial fibrillation was considered one of the findings. I think that Dr. Copeland would agree with me today that if we had taken esophageal leads on these patients, we would have found that the rhythm was

most likely atrial tachycardia with block rather than the apparent atrial fibrillation. The inference here is that this fast atrial dysrhythmia may have been due to digitalis. However, I think that we should bear in mind that it may also have been due to the progression of the disease rather than to digitalis. A further possibility is a combination of these two things, that is, a disease of the heart which would make the muscle more sensitive to digitalis effect.

Perhaps Dr. Booth will discuss the x-rays at this point.

DR. JAMES L. BOOTH: The first chest film which you see here is one made on the first day of the second admission, on August 8, and this portable film in which the heart was of course magnified, and we see a shadow here which is not to be confused with fluid in the chest. This is an arm lying against the chest wall. Subsequently, on the other films you will see that the lung is clear. One of the things that we have to take into consideration when we read portable films is that the large breast shadow gives a density, usually bilateral, although one breast may be larger and produce densities. Here this was interpreted as a slightly enlarged heart with some congestive changes. The second film was considered as not showing any evidence of congestive failure. The heart, allowing for magnification of the portable techniques, is considered to be within normal limits. I do not believe that there have been any changes in heart size. This is always a matter of judgment as to whether the heart is enlarged when you interpret a portable film, because you never know how far the technician went back with his machine, whether he took it at 40 inches, 50 or 60. You know that he did not take it at teleo distance which is 72 inches. So you have a 30 to 40% magnification factor here. The third film which was taken on August 20 is considered to show a heart within normal limits. You still see the EKG. leads in place. The film is a little light, technically, but the lungs look fully expanded and fairly clear. I would say that all through there we are not impressed with too much evidence of congestive failure. There is no fluid, but some increase in pulmonary marking. The heart itself does not

appear to be significantly enlarged, if enlarged at all.

DR. STERN: The striking thing is that in spite of the patient's failure and imminent death the heart is not extremely large. The increase in size is dilatation, of course, with no definite information about the thickness of the heart. However, I would expect even more dilatation than this in view of the fact that the patient had 3+ pitting edema of the legs.

Even though digitalis was discontinued, the dysrhythmia became worse. The patient developed atrial tachycardia with block, AV nodal rhythm, atrial tachycardia without block, and atrial fibrillation. These findings can strengthen our feeling that the rhythm abnormality is secondary to the basic disease rather than being secondary to digitalis.

Finally, the patient became hypotensive, and Aramine was administered. The hypotension may have been secondary to the Pronestyl which she received. Pronestyl is a wonderful drug; I use it by choice in serious arrhythmias. However, both it and quinidine are myocardial depressants and may precipitate hypotension.

The SGOT. had been normal on admission and then rose as high as 2130 units, a very great elevation. This does not suggest heart disease to me but is much more likely to be due to liver abnormality. It would have been helpful to have a CPK. at this time; this enzyme probably would not have shown significant elevation. I have two explanations for the SGOT. elevation. One is hypotension. This is perhaps the most common cause of massive SGOT. elevation in heart disease; it is due to the effect of hypotension or pulmonary edema on the liver. A second possibility, and the one that I feel is somewhat more likely, is an embolus to the liver. This patient, with myocardial disease and atrial fibrillation has an ideal foundation for thrombus within the heart and eventual embolization.

In summary, then, we are faced with a patient who had multiple seizures, compound dysrhythmias, myocardial failure progressing gradually downhill, and moderate enlargement of the heart. From a statistical point of view the most likely diagnosis would be myocardial infarction second-

ary to coronary artery disease. I am going to discard this for a number of reasons, none of which are conclusive in themselves. First of all, it is quite unlikely that a patient with this diagnosis would be presented as a CPC, even though occasionally the pathologists become quite tricky and give us a very common disease. Serum cholesterol was low. This certainly is not diagnostic, but it is one factor that tends to point away from this diagnosis. The patient was old enough that we could assume that she was postmenopausal, and she did have diabetes. These would lead toward coronary disease. However, her clinical picture was not at all typical, and the EKG's. were not diagnostic. I therefore will discard this diagnosis.

Having ruled out myocardial infarction, we have to consider the other diseases that can present myocardial lesions. Most of these are in the group that it is fashionable to call myocardopathy. A number of diagnoses are covered, some of which I will mention specifically. I do not think that this patient had polyarteritis although it is always tempting to diagnose polyarteritis in a CPC. Arteritis can certainly cause myocardial infarction and necrosis. Nor do I think this is an inflammatory myocarditis. I cannot rule this out absolutely since some of the inflammations are quite low grade and prolonged. Indeed, death has been reported from inflammatory myocarditis in patients who were clinically asymptomatic up to the time of death. It would have been helpful in making this diagnosis, however, if serum enzymes had been elevated before the very end of the illness.

We are now left with the so called myocardoses, the noninflammatory lesions of the heart muscles. I am going to pick one of these that will give us, in addition to everything else, the low voltage. Something must have happened to reduce the amount of electromotive force in the anterior and diaphragmatic portions of the heart. This can be due to scar; it can be due to tumor, or it can be due to amyloid. Scarring, we have already discussed. Tumor of the myocardium is a possibility. I am not strongly impressed by the possibility, but I would consider this as the second diagnosis on my list. My primary diagnosis, though, will be

amyloid of the heart. This patient fits the clinical picture quite well. She had inextinguishable heart failure, and she had sensitivity to digitalis. She had a sensitive myocardium with great irritability. She had abnormality of septal depolarization. She had low voltage on the EKG. and finally, she may well have had embolization.

DR. E. E. MUIRHEAD: The diagnosis in this case was not made until the microscopic examination of the tissues. The conclusions reached were the same as those of Dr. Stern.

The heart weighed 480 Gm. and was large indeed. Thickening of the wall was not particularly outstanding, amounting to 2 cm. for the left and 0.5 cm. for the right ventricle. The coronary arteries and all of the valves were normal. The lungs were soft, dry and of normal weight. There was a small embolus in the vessel of the left lower lobe (about 0.4 cm. in size). We suggest that this embolus was derived from the phlebothrombotic involvement of the veins of the right lower extremity. There was little else described through gross examination except that certain structures were said to be very firm to the touch.

By the microscopic examination, this patient had amyloidosis as Dr. Stern has announced.

Figure 1 depicts an area of the myocardium, including the endocardium. There are amyloid deposits in the endocardium and about the myocardial fibers. The Congo Red stain of this material was positive.

Figure 2 shows diffuse hyalinization among the muscle fibers of the myocardium, emphasizing again the diffuse distribution of the amyloid deposits in the heart. The small arteries of the heart showed prominent hyaline change due to amyloid involvement of the wall.

The distribution of amyloid not only emphasized the involvement of the heart but also involvement of liver, spleen, kidneys and other structures.

Figure 3 shows outstanding deposition of amyloid in a blood vessel of the portal area of the liver. These vessels were markedly thickened and had markedly narrowed lumina. The portal areas were also fibrotic. In addition, there was collapsed fibrosis of

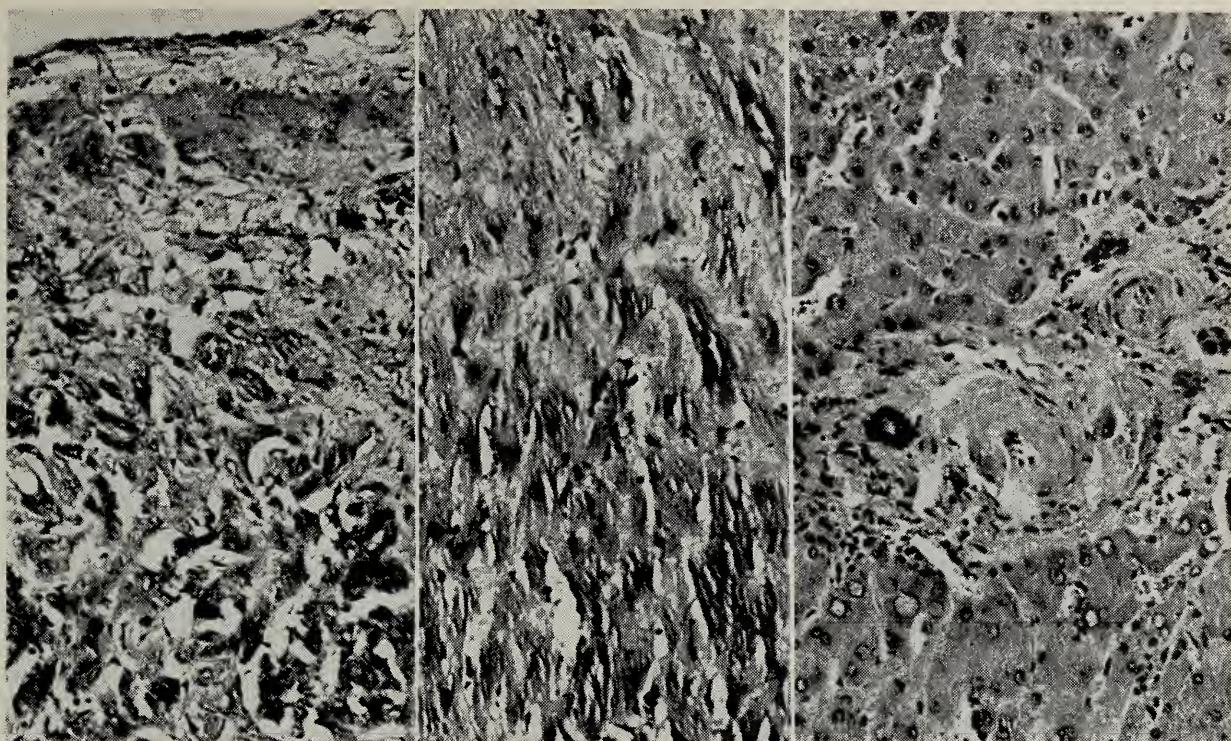


FIG. 1

FIG. 2

FIG. 3

the central part of the hepatic lobules. The hepatic tissue, sandwiched between the fibrotic portal area and the collapsed central area, displayed prominent cholestasis. These findings could well have been related to a combination of the hypotension and the compromised hepatic circulation due to the vascular involvement.

Figure 4 shows amyloid deposits in the spleen which were confined mostly to the splenic nodules, giving the picture of the sago spleen. The central arteries also revealed marked amyloid deposition.

Figure 5 reveals prominent involvement of the kidney. Here an arteriole entering the glomerulus is markedly thickened by

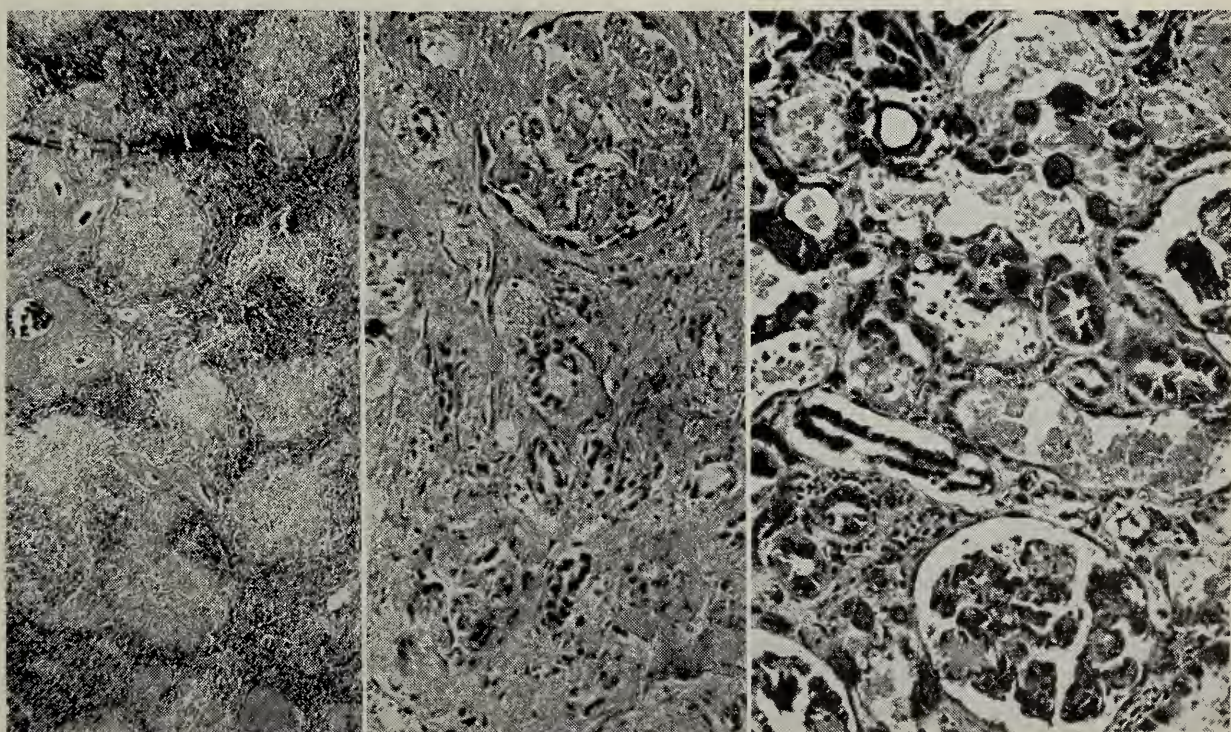


FIG. 4

FIG. 5

FIG. 6

amyloid and there is almost complete destruction of the glomeruli by amyloid.

Figure 6 reveals acute tubular necrosis which we consider related to the episode of shock.

In addition to the involvement of these organs, there was almost total replacement of the thyroid gland and the pancreas by amyloid. The bone marrow showed prominent plasmacytosis (Fig. 7).

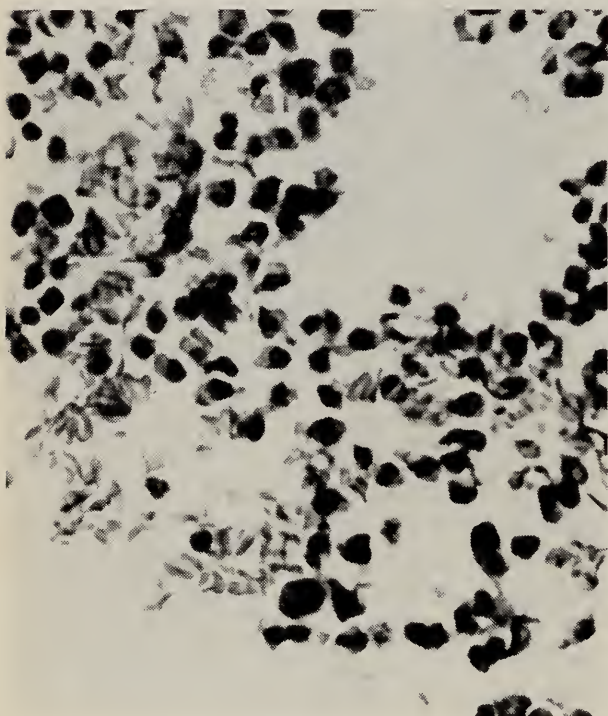


FIG. 7

General Comment: Since 1935 (Reimann, Koucky and Ecklund¹), it has been customary to classify amyloidosis as primary, secondary, localized, tumorous and that associated with myeloma. This is the classification of amyloidosis presented in most textbooks. In recent years a whole group of additional terms have been applied to amyloidosis such as classical, atypical, para-amyloidosis, perireticular, etc. There is a growing feeling that most of these terms are superfluous since most amyloid deposits are basically similar. Table 1 contrasts the Reimann classification with a more recent one (Azar²).

Table 2 relates factors which are associated with amyloid deposits. Amyloidosis may be of the hereditary type, particularly found in periodic disease (Mediterranean Fever). Amyloidosis may be associated with chronic inflammation. Although in

Table 1

AMYLOIDOSIS

- I Classification (Since 1935)
 - A. Primary
 - B. Secondary
 - C. Localized (tumorous)
 - D. Of Myeloma
 Other terms: "classical," "atypical," "para-amyloidosis," "peri-reticular," "peri-collagenous," etc.
 Likely unnecessary since all types similar.
- II Classification (more recent)
 - A. Generalized
 1. Usual pattern (sepsis, myeloma, plasmacytosis)
spleen, kidneys, liver, etc.
 2. Unusual pattern
tongue, muscle, heart, periarticular, etc.
 - B. Localized (one site or organ)
respiratory, skin, bladder, bone, heart, etc.

Table 2

AMYLOIDOSIS

Associated Factors

1. Hereditary
 - Familial Med. fever (periodic disease)
 - Polyneuritic familial type
2. Chronic inflammation
 - T.B., leprosy
 - Rh. arthritis, pyelonephritis
 - Ulcerative colitis, etc.
 - (all have plasmacytosis)
3. Multiple myeloma (15%)
4. Diffuse, nonmyelomatous plasmacytosis
(no skeletal destruction)
(monoclonal gammopathy)
5. Thyroid carcinoma, islets Langerhans
6. Nutritional
 - Excessive food intake (dairy products?)
7. Age (heart mainly)
8. Experimental
 - Immunization, casein, viruses

the past tuberculosis was especially emphasized, more recently rheumatoid arthritis, pyelonephritis and ulcerative colitis have been mentioned. Fifteen percent of patients with multiple myeloma have amyloid deposits. Osserman et al³ has emphasized a diffuse, non-myelomatous plasmacytosis associated with monoclonal gammopathy but lacking skeletal destruction. Amyloid may be a feature of this condition. Amyloid may be deposited in the islets of Langerhans, particularly in diabetes mellitus. Nutritional factor such as excessive food intake, particularly dairy products, have been incriminated. In the aging process, amyloid is apt to be deposited in the heart, and ex-

perimentally amyloid is produced by hyper-immunization, the intake of casein and may be transmitted in diseases that appear to be of viral origin. In most of these instances, there is plasmacytosis of the bone marrow.

Table 3 relates certain characteristics of

Table 3

AMYLOID MAKE-UP

1. Glycoprotein (protein-mucopolysaccharide)
2. Different proteins
3. Hyaline, extracellular deposit
4. Staining reactions (not consistent)
 - Metachromasia
 - Congo red
 - PAS
 - Thioflavine-T
5. Gamma globulin in some (not all)
6. Possible relation to Bence-Jones protein
(Light chain of γ globulin)
7. Electron microscopy consistent, all types
 - a. Fibrillar (100 Å across)
 - b. Periodicity
 - c. Similar to plasma α glob.
(additional protein?)

amyloid.⁴⁻⁸ Amyloid is considered as a glycoprotein. It contains, however, different types of proteins within its makeup. This latter feature may be responsible in part for disagreements concerning this substance. In attempts to identify amyloid according to its staining reactions, variations may be encountered. Some amyloid deposits have gamma globulin, some have fibrinogen, some have other proteins. The important point is that by electronmicroscopy it makes little difference what the background for the amyloid material is, the appearance is the same. The amyloid appears to be made up of fibrous protein material. These various differences have given rise to two major points of view concerning the deposition of amyloid. In one, it is thought to be produced locally, possibly by reticulo-endothelial elements. The other view, expressed by Azar,² considers that plasma

cells or lymphoreticular cells produce the protein, that it travels in the blood stream and is deposited in certain locations, particularly in subendothelial and perivascular locations. Onto this protein may be added carbohydrates and possibly other substances (Table 4).

Table 4

ORIGIN AMYLOID

1. Related to plasma cell and lymphoreticular proliferation.
2. Not common in bone marrow.
3. Subendothelial or perivascular location.
4. Fibrillar protein in lymphoreticular cells.
5. Azar Thesis: Origin in cells
 - ↓
 - circulate in blood
 - ↓
 - deposit perivascular

In the present case, there was diffuse amyloidosis and since there was no associated disease it must be designated as primary amyloidosis by the 1935 classification. The distribution, however, had much of the characteristics of secondary amyloidosis with emphasis on deposits in the liver, spleen and kidneys. The hypotensive state, possibly of cardiac origin, aggravated the basic disease by causing additional hepatocellular and renal tubular damage.

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TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society, Inc.)

MEMORIAL AUDITORIUM, CHATTANOOGA, TENNESSEE

Monday, October 2, and Tuesday, October 3, 1967

15TH ANNUAL ASSEMBLY

Monday, October 2, 1967

- 7:30 REGISTRATION BEGINS
- 9:00 PHILIP THOREK, M.D., Prof. of Surgery, Cook Co. Graduate School of Medicine, Chicago, Ill., *"The Acute Abdomen in the Aged"*
- 9:30 GRANT W. LIDDLE, M.D., Prof. of Medicine, Vanderbilt Univ. School of Medicine, Nashville, Tenn., *"Ectopic Hormones"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 H. M. POLLARD, M.D., Prof. and Chr., Dept. of Int. Med., Univ. of Michigan Medical School, Ann Arbor, Michigan, *"Management of Small and Large Bowel Inflammatory Disease"*
- 11:00 T. MANFORD MCGEE, M.D., Clin. Assoc. Prof. Dept. of Otolaryngology, Wayne State Univ. School of Medicine, Detroit, Mich., *"Vertigo and Its Interpretation"*
- 11:30 CARROLL L. WITTEN, M.D., Pres. American Academy of Gen. Practice, Louisville, Ky., *"Medicare—What Does the Future Hold?"*

NOON

- Luncheon Symposia—October 2, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)
- No. 1 "THE PATHOLOGY OF DIABETES—1967"
Guest Panelists: SHIELDS WARREN, M.D.
VERNON KNIGHT, M.D.
- No. 2 "CHANGING PATTERNS IN CANCER OF THE G.I. TRACT"
Guest Panelists: PHILIP THOREK, M.D.
H. M. POLLARD, M.D.
- 2:00 B. H. SCRIBNER, M.D., Prof. of Medicine, Univ. of Washington School of Medicine, Seattle, Wash., *"Dialysis in Chronic Renal Failure"*
- 2:30 JOHN G. BOUTSELIS, M.D., Assoc. Prof., Dept. Obstetrics & Gynecology, Ohio State Univ. College of Medicine, Columbus, Ohio, *"Carcinoma In Situ of the Cervix"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 VERNON KNIGHT, M.D., Chr. and Prof. of Medicine, Baylor Univ. College of Medicine, Houston, Texas, *"New Studies on the Common Cold and Influenza"*
- 4:00 SHIELDS WARREN, M.D., Prof. Emeritus, Pathology, New England Deaconess Hosp., Boston, Mass., *"Pathology of Cancer of the Thyroid and its Relation to Radioactive Fallout"*

Tuesday, October 3, 1967

- 7:30 REGISTRATION
- 9:00 GUY L. ODOM, M.D., Prof. Neurosurgery, Duke Univ. Medical School, Durham, N. C., *"Intracranial Bleeding of Non-Traumatic Origin"*
- 9:30 LOUIS K. DIAMOND, M.D., Prof. Pediatrics, Harvard Medical School, Boston, Mass., *"Blood and Blood Replacement: Benefits and Hazards"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 ROBERT A. ROBINSON, M.D., Prof. Orthopaedic Surgery, Johns Hopkins Univ., Baltimore, Md., *"Anterior Fusion of the Cervical Spine"*
- 11:00 HARRY W. SOUTHWICK, M.D., Clin. Prof. of Surgery, Univ. of Illinois College of Medicine, Chicago, Ill., *"Management of Disseminated Breast Cancer"*
- 11:30 JAMES T. GRACE, JR., M.D., Asst. Dir., Roswell Park Memorial Institute, Buffalo, New York, *"Viruses and Neoplasms"*

NOON

- Luncheon Symposia—October 3, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)
- No. 3 "DO'S AND DON'TS IN THE EMERGENCY ROOM"
Guest Panelists: R. A. ROBINSON, M.D., GUY L. ODOM, M.D., H. W. SOUTHWICK, M.D.
- No. 4 "LYMPHOMAS AND RETROPERITONEAL TUMORS"
Guest Panelists: J. T. GRACE, JR., M.D., HARRIS D. RILEY, M.D., J. E. LEWIS, JR., M.D., L. K. DIAMOND, M.D.
- 2:00 HENRY N. HARKINS, M.D., Prof. & Chr., Dept. of Surg., Univ. Washington School of Medicine, Seattle, Wash., *"Development and Advantages of the 'Combined Operation' for Duodenal Ulcer Incorporating Selected Vagotomy"*
- 2:30 HARRIS D. RILEY, JR., M.D., Chr. & Prof., Pediatrics, Univ. of Oklahoma School of Medicine, Oklahoma City, Okla., *"Measles Vaccine: Results of Studies and Use in Practice"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 EDWARD D. FREIS, M.D., Sr. Medical Investigator, Veterans Administration, Washington, D. C., *"The Treatment of Hypertension"*
- 4:00 J. EUGENE LEWIS, JR., M.D., Assoc. Prof. of Clin. Surgery, St. Louis Univ. School of Medicine, St. Louis, Mo., *"The Optimum Age for Elective Surgery in Children"*

From the
Executive
Director

E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Medicare in Tennessee Pays \$33,000,000.

● Tennesseans have received more than \$33,000,000 in Medicare benefits during the first ten months of the federal health care program for those over 65. A total of 6.8 million dollars of this was under "Part B" for the major medical portion of the program, which is growing rapidly. This is the portion where Medicare pays 80 percent of the "usual and customary" charges for medical services after the first \$50.

The biggest portion of the Medicare payments went for hospital, extended care and home health agency bills. Total dollar claims in this category for 90 of Tennessee's 95 counties were 21.1 million dollars. Total number of claims during the period from July 1, 1966, when Medicare went into effect, through April 30 of this year were 91,300.

In the five West Tennessee counties, including Shelby, 27,114 claims for the ten month period, totaled \$6,662,092.00.

Development Council Organized for State- wide Health Careers Program

● A newly organized Development Council for a health careers program throughout the state has been completed by the Tennessee Hospital Education and Research Foundation.

The Council, which will have approximately 100 members is being organized in support of an effort to raise funds to finance the health careers program which is a coordinated effort to relieve Tennessee's current severe shortage of nurses and para-medical personnel.

Tennessee's hospitals alone will need an additional 8,000 skilled health workers in the next five years, it is reported. Statistics show that Tennessee has only 178 nurses per 100,000 population compared to the national average of 298. Goals have been established and funds will be used to recruit students and faculty, provide scholarships and loans and develop adequate facilities for education and training in all types of health careers.

IRS Opens Attack On Tax Exempt Organizations

● The Internal Revenue Service has announced proposed regulations which would make unrelated business income of tax exempt organizations subject to income tax. The proposed IRS regulations would hit particularly hard at journal advertising revenue received by professional and trade associations. It would affect organizations such as the Boy Scouts, the Girl Scouts, the Tennessee Medical Journal, the AMA Journal, the American Bar Association, the American Dental Association, the U. S. Chamber of Commerce, the Farm Bureau and thousands of other non-profit organizations including state medical societies. Already, the IRS has initiated action against the Student American Medical Association to revoke its tax exempt status. Write your Congressman protesting this proposed IRS regulation.

Health Care Prices

● Much concern is being expressed about the trends in health care prices. HEW has stated, "physician fees, which had been rising about 3 percent in 1960-65, went up 7.8 percent in 1966 --- the biggest increase since 1927". "Hospital daily charges, rising about 6 percent a year between 1960 and 1965, went up 16.5 percent in 1966 --- the largest increase in eighteen years."

The AMA has pointed out that these figures widely quoted in the press and used by commentators were based on a comparison of fourth quarter, 1965, figures in the Consumer Price Index with fourth quarter, 1966, figures in the CPI. AMA research survey shows that physician fees in 1966 over 1965 is up 5.8 percent, not 7.8.

Workmen's Compensation—Action of the Tennessee General Assembly

● A number of bills were introduced initially in the recent session of the Tennessee General Assembly, with the various phases of the Workmen's Compensation Act. Late in the session, an over-all composite bill was drawn to include much contained in various small and insignificant bills. The Workmen's Compensation Act was amended by the Legislature to increase hospital medical benefits from \$2,500 to \$5,000. The hospital and physician was also granted the immunity of sending records of insurance companies on Workmen's Compensation cases without the consent of the patient.

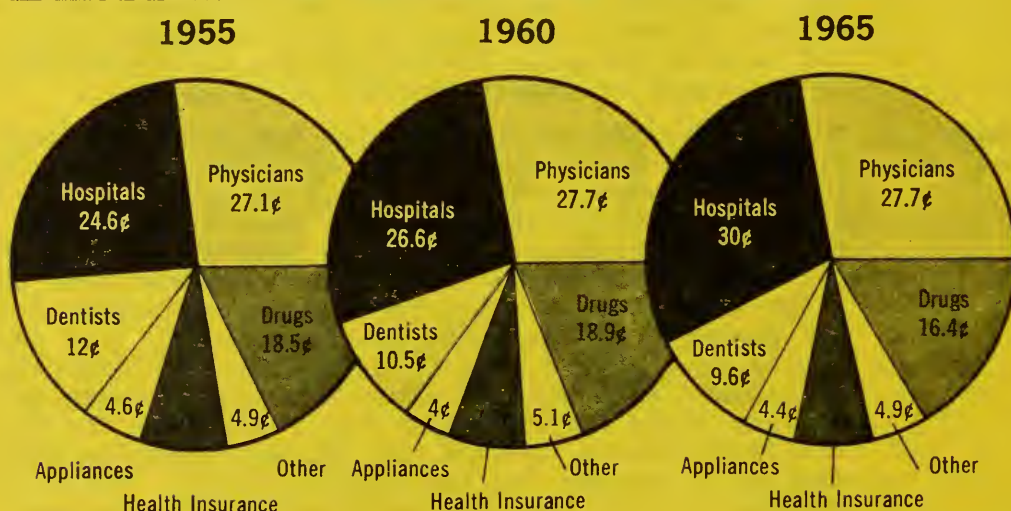
Medical Laboratory Bill Passes

● The Senate and House passed an Act providing for the licensing and regulation of medical laboratories and of certain personnel associated with such laboratories; to provide for the promulgation of rules and regulations pertaining thereto by the Department of Public Health; to provide for inspection of such laboratories and reporting of certain information by such laboratories; to provide for the appointment of advisory committees to the Department of Public Health; to regulate the training of laboratory personnel; to provide for the qualification of laboratory personnel; to prohibit certain acts by medical laboratories and their personnel and by others and to provide sanctions for such acts. The Act became effective July 1.

General Assembly Thanks TMA for First Aid Station

● The Tennessee General Assembly (Senate and House) adopted joint resolutions thanking the Tennessee Medical Association for sponsoring, with the Tennessee Hospital Association, a first aid station for members of the 85th General Assembly. The TMA and the Hospital Association provided the equipment and services and more than forty physician members volunteered their time to staff the station. The Tennessee Hospital Association supplied a full-time nurse. More than 350 persons were seen at the station during the session.

**DISTRIBUTION OF THE HEALTH CARE DOLLAR
FOR YEARS 1955, 1960, AND 1965**



SURVEY OF CURRENT BUSINESS, November 1965, Vol. 45, No. 11, pp. 20-23; July 1966, Vol. 46, No. 7, p. 20.
SOURCE: U. S. Department of Commerce, Office of Business Economics.
(Calculations by Dept. of Survey Research, AMA)

—AMA News Graphichart

Public Service

THE TENNESSEE TEN

Hadley Williams, Assistant Executive Director

AMA Conducts Drug Cost Survey

● A recently completed drug-price survey conducted by the AMA staff in the Chicago area reinforces the contention that the generic prescribing of drugs by a physician does not assure the patient a lower price.

The survey came as the generic vs. brand name ethical drug argument was being debated in Congress. The Senate Small Business Subcommittee, headed by Sen. Gaylord Nelson (D. Wis.), began hearing witnesses on the subject and it became apparent as testimony was given that the hearings were being held to muster support for bills to require generic prescribing.

The AMA survey involved 686 prescriptions for seven drugs filled at a total of 185 drug stores.

Two significant factors evolved from the survey, (1) that there are large variances, store-to-store, in the price of a single drug and (2) that the prescribing method of the physician (generic vs. name brand) has little or no bearing on what the patient will have to pay to have the prescription filled. The survey calls attention to the fact that a generic prescription is viewed by the pharmacist as an open prescription which can be filled with any brand drug he desires, even the more expensive.

TMA Position on Drug Prescribing

● The TMA House of Delegates adopted a resolution at the April meeting opposing any attempt by any governmental agency to require the use of generic drugs or generic terms in the prescribing of drugs by the physicians of Tennessee in their private practice of medicine. The House said that it is the duty of every physician to prescribe precisely that drug for the patient which he deems, in his best judgment, to be most efficacious and that the use of generic terms in prescribing drugs transfers to the pharmacist the prerogative of deciding which brand or quality of drug is to be used in filling the prescription.

Physician Ethics Regarding Drugs

● The physician's ethical responsibilities in prescribing drugs and devices have been outlined in a resolution recently adopted by the AMA's Judicial Council. The Council's resolution made the following points:

1. It is unethical for a physician to be influenced in the prescribing of drugs or devices by his direct or indirect financial interest in a pharmaceutical firm or other supplier. It is immaterial whether or not the firm manufactures or repackages the products involved.
2. It is unethical for a physician to own stock or have a direct or indirect financial interest in a firm that uses its relationship with physician-stockholders as a means of inducing or influencing them to prescribe the firm's products. Practicing physicians should divest themselves of any financial interest in firms that use this form of sales promotion. Reputable firms rely upon quality and efficiency to sell their products under competitive circumstances, and not upon appeal to physicians with financial involvements which might influence them in their prescribing.

3. Prescribing for patients involves more than the designation of drugs or devices which are most likely to prove efficacious in the treatment of a patient. The physician has an ethical responsibility to assure that high quality products will be dispensed to his patient. Obviously, the benefits of the physician's skill are diminished if the patient receives drugs or devices of inferior quality.

4. Inasmuch as the physician should also be mindful of the cost to his patients of drugs or devices he prescribes, he may properly discuss with patients both the quality and cost.

Dr. Charles C. Smeltzer, of Knoxville, is a member of the AMA Judicial Council.

Health Guide Being Distributed

● "Today's Health Guide", the AMA's comprehensive manual of health information, is in the process of being placed in each senior high school in Tennessee. More than 350 copies have been distributed thus far by TMA in cooperation with local county medical societies and distribution of approximately 600 copies is the ultimate goal. Each county society is being asked to share with TMA the cost of placing the book in each high school within the respective society's county.

The 640-page compendium of information, now in its third printing, is designed to furnish the latest information at a time when medical knowledge is increasing rapidly. "Today's Health Guide" contains 90 chapters, each dealing with an important aspect of health in the family.

Response to the project has been excellent and many schools have expressed appreciation for making this publication available to their faculties and students.

County societies that have not participated to date are urged to give immediate consideration to this worthwhile public service project.

Glaucoma Clinics Successful

● The Hamilton County Ophthalmologist Society joined with the Hamilton County Health Department and eighteen Lions Clubs in mid-May to successfully conduct their ninth annual Glaucoma Clinic.

Four clinics were operated throughout the county by some 800 member Lions, 20 Ophthalmologists and their aides and more than 50 student and registered nurses and members of the Hamilton County Health Department.

More than 38,000 free examinations have been given in prior clinics and 833 cases of glaucoma detected as a result of this excellent project.

Newspaper Feature Being Continued

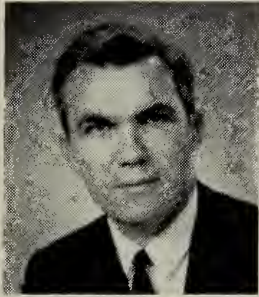
● "The World of Medicine", a public service newspaper feature, is being continued by TMA in more than 50 newspapers across the state for the remainder of the year.

The interesting and informative "Believe-it-or-Not" type of newspaper feature is furnished free to newspapers desiring the service. Each feature gives specific health information, spreads knowledge of the historic roots and traditions of medical practice and upgrades the public awareness of good medical standards.

Let your local editor know that the physicians of his community would like to see the feature in his newspaper, if he is not participating in the project at present. And, be sure to thank him if he is scheduling the feature already.

President's Page

Comprehensive Health Planning



DR. KRESSENBERG

Recently enacted by the 89th Congress, P. L. 89-749, otherwise known as the Comprehensive Health Planning Law, places all federal grants to states under a single state agency, rather than in categories. This means that each state will receive a block grant for all health services and will then decide how this money is to be expended.

The Tennessee Department of Public Health has been designated by the Tennessee General Assembly to supervise this program. The Governor will appoint a Comprehensive Health Planning Council which by law (federal) must include consumers of health services as a majority of its members. The Tennessee Medical Association will be asked by the Governor for nominations of physician members for this Council. In addition, a Technical Consultative Committee will be appointed by the Commissioner of Public Health and since the composition of this committee is not spelled out in the law, it is presumed that a majority of its members will be physicians representing the Tennessee Medical Association.

Since the stated purpose of this law is to coordinate the planning of all health services, including medical services, with resulting economy of manpower as well as finances, it is difficult to oppose the principle of the program. Theoretically, through proper planning, these health services can be provided to more people at less cost than before. However, as we have seen in the past, the end result of health legislation is not necessarily beneficial, even if the principle is sound.

What all of this means to us as practitioners depends upon the extension of public health services to larger and larger segments of the population, and the ever present danger of encroachment on the private practice of medicine. Allowing consumers of health services to choose what services they will receive is comparable to letting children choose what they eat or wear, and what they shall study in school.

Theoretically, the regional medical programs (heart, cancer, stroke), the Areawide Planning Council, Demonstration Health Centers, Appalachia health services, and a myriad of other services will eventually all be dovetailed and fitted together by means of comprehensive health planning. If this occurs, we will indeed have quite a program which, although it might serve to make more efficient use of funds, might very well lead to the Federal Government further usurping prerogatives heretofore in the hands of private practitioners.

This program will be followed with interest by the officers, Board and staff of the Tennessee Medical Association, and as we comply with the law, we will endeavor to exert our influence to keep this program in its proper frame of reference.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203

Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor

Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn. 37203

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JULY, 1967

EDITORIAL

THERAPEUTIC ABORTION

Practically a century has passed since the American Medical Association last took action on this matter (in 1871). The recommendation at that time was that it "be unlawful and unprofessional for any physician to induce abortion or premature labor, without the concurrent opinion of at least one other respectable consulting physician, and then always with a view to the safety of the child—if that be possible."

For those impatient of "progress," in whatever area of human interest, the changing concepts about therapeutic abortion within the past decade should again emphasize that other than political revolution, the march of human progress is measured and quite orderly, albeit at times with seeming tortoise-like speed. History is replete with many examples of the necessary accumulation of knowledge and thoughtfulness as to its application before a march of events gets underway. When it does, it is interesting to recognize that it does so often simulta-

neously in multiple foci in the world. The House of Lords is currently discussing abortion in the context of English Law. A bill to legalize therapeutic abortion has been introduced in the Canadian House of Commons by a woman M.P.; California, Colorado, and North Carolina have taken legislative steps to modernize their laws in respect to therapeutic abortion. In 20 additional states bills have been introduced or study commissions been appointed. Some countries have for some years had a more liberal attitude in this regard.

Why this multifocal general agreement that serious thought be directed to the subject of therapeutic abortion?

Knowledge has expanded beyond the mere saving of a mother's life to an understanding of genetics and extraneous deleterious influences upon the developing fetus. The astute clinical observations of the Australian practitioner who documented the congenital anomalies common in the off-spring of women who had had rubella during pregnancy, the more recent impact of thalidomide and birth of deformed children, as well as the gradually accumulating knowledge of the untoward effect of other extraneous influences upon the developing fetus, have become well known to the literate and have inspired fears and demands for preventative medicine in this area. One can understand the anxiety of an intelligent pregnant woman who in planning a family is fearful of a "fifty-fifty chance" of a handicapped child possibly for life and her desire to have another chance. If she and her husband seriously practice family planning, she can easily rationalize therapeutic abortion. One can argue if one will that she should have the same freedom of choice as one of different background, cultural or religious, who would find this repugnant. Psychiatry and mental health too have come of age in the past half-century and many will argue that mental, social and family health are factors to be weighed in the balance, and hence the willingness to accept pregnancy as the result of rape or incest as legitimate indications for therapeutic abortion as well as more purely psychiatric states in the mother.

In addition to the expansion of knowledge which has had its impact upon literate and

intelligent people, is the unquestioned change to a more liberal interpretation of ethical and religious mores. Not only devout members of religious sects but also many in the pulpit are taking a more liberal and realistic viewpoint of the great number of social problems which press upon our civilization. These changes in attitude have been directed more to divorce and contraception, but hand in hand with such thinking there is sure to be a more liberal interpretation for therapeutic abortion.

Some time subsequent to the recommendations of changes in our laws as proposed in the 1959 Model Penal Code promulgated by the American Law Institute, the AMA Committee on Human Reproduction took the matter of therapeutic abortion under consideration. Its report in 1965 was transmitted to the House of Delegates by the Board of Trustees. After much testimony and discussion before a Reference Committee, this Committee brought the report to the House with, "Mr. Speaker, I move that the portion of the report of the Committee on Human Reproduction which is concerned with abortion be referred back to the Board of Trustees, with the recommendation that the subject matter be explored in depth with other interested groups."

The problem as summarized in the recent report (1967) points to the state laws on abortion all now about a century in age. At the same time hundreds of physicians annually are breaking the law (criminal abortions are *not* under consideration here) in that about "10,000 pregnancies are terminated (annually) by licensed physicians in accredited hospitals with the knowledge and concurrence of consulting colleagues." These are performed for reasons summarized above, probably a half or more for psychiatric reasons. In other words, therapeutic abortions *not* to save a mother's life.

Since the 1965 action of the House of Delegates the Committee on Human Reproduction has held the following hearings or meetings:—with the Council on Mental Health and the American Psychiatric Association; with the American Bar Association; through the AMA Department of Medicine and Religion obtained expressions of opinions from the Roman Catholic, Protestant and Jewish clergy; the AMA Committee on

Maternal and Child Care; from 12 state medical societies which have taken action or contemplate doing so; as well as from the following medical organizations which have taken a stand or expect to,—The American College of Obstetricians and Gynecologists; American Medical Women's Association; American Psychiatric Association; American Public Health Association; Chicago Gynecologic Society; New York Academy of Medicine, and the Women's Medical Association of New York. A poll of the obstetrician-gynecologists of the states of New York and California shows that a large majority favor the recommendations of the Model Penal Code. "Finally, in a 1966 Gallup poll, about 80% of the public contacted favored therapeutic abortion for reasons of maternal health as well as life, and a majority favored voluntary termination of pregnancy in cases where the child might be born deformed."

It seemed to the Committee on Human Reproduction that the AMA should adopt a position which might guide component and constituent societies in states contemplating legislative reform. The report recognized that the profession was not in universal agreement with this position, and certainly everyone recognizes too that a large segment of the population at this time in the world's history cannot and will not accept therapeutic abortion in the new sense because of religious or ethical scruples. However, these scruples which forged the iron-bound laws of a century ago may now be broken to free ethical physicians to practice modern medicine, and grant freedom to a married couple within the context of today's serious family planning for the number and timing of *healthy* children for the family unit.

The guide-lines as passed by the House of Delegates then stands as follows:

"In view of the above, the American Medical Association is opposed to induced abortion except when:

(1) There is documented medical evidence that continuance of the pregnancy may threaten the health or life of the mother, or

(2) There is documented medical evidence that the infant may be born with incapacitating physical deformity or mental deficiency, or

(3) There is documented medical evidence that continuance of a pregnancy, resulting from legally established statutory or forcible rape or incest



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may constitute a threat to the mental or physical health of the patient;

(4) Two other physicians chosen because of their recognized professional competence have examined the patient and have concurred in writing; and

(5) The procedure is performed in a hospital accredited by the Joint Commission on Accreditation of Hospitals.

"It is to be considered consistent with the principles of ethics of the American Medical Association for physicians to provide medical information and guidance to State Legislatures in their consideration of revision and/or the development of new legislation regarding therapeutic abortion in conformance with the above statements."

The House of Delegates of the American Medical Association has acted with proper timing in accord with a popular and professional ground-swell for liberalization of the recommendations on therapeutic abortion written a century ago. To have taken such action a decade ago would have been premature and by popular, religious or legal reaction might have set back the hands of the clock. History has demonstrated time and again that feasible change or evolution can keep pace only with a constituency amenable to change—anything else is revolutionary to be accompanied literally or figuratively by bloodshed.

Even without this action, as has been indicated, quite a number of states have bills under consideration consonant with the Model Penal Code. With the guidelines offered by the AMA one can anticipate interest by the medical profession in initiating action in still other states. And, finally, no doubt sooner or later, one may anticipate that the Tennessee Medical Association will need to take a similar stand.

R.H.K.

Special Item

AMERICAN COLLEGE OF PHYSICIANS INSTALLS DR. RUDOLPH H. KAMPMEIER AS ITS PRESIDENT

Honors belong to men of stature—lives of renown—in fields of service unsurpassed for usefulness. Tributes conferred by colleagues have a special significance, attesting as they do to the qualities thus recognized in the profession bestowing them; and that distinction was pronounced in the installation of Dr. Rudolph H. Kampmeier of

Nashville, as President of the American College of Physicians. Dr. Kampmeier's installation came on April 14th in San Francisco before an audience of 5,500 doctors.

Physicians of Tennessee know him as an esteemed citizen and practitioner through the years. He has been chosen by his colleagues as Tennessee's Outstanding Physician of the Year, and has been a leader, instructor, author, in the realm of the healing sciences, and has been involved in numerous civic projects having to do with community health in Nashville and Davidson County.

Now Professor of Medicine Emeritus at the Vanderbilt University School of Medicine—and as the past director of continuing education—he has contributed a lifetime of service to this vital field of expanding knowledge. He is well known as a Past-President of the Tennessee Medical Association, Editor of its Journal, as well as the Editor of the Southern Medical Journal and Past-President of that Association.

As President of the American College of Physicians, Dr. Kampmeier will head the group's education program. He has previously served for five years on the Board of Regents of the group and his election to President is the highest honor that can be bestowed upon a practitioner of internal medicine.

A native of Clarksville, Iowa, he is a graduate of the University of Iowa and received his specialty training at the University of Michigan Medical School.

The American College of Physicians represents 13,000 physicians whose specialty is internal medicine and related fields. The primary purpose of the organization is the continuing education of practicing physicians.

At various times during Dr. Kampmeier's career, he has been a teacher, general practitioner, internist, author, clinical researcher and consultant to government agencies. By the record of a life-long dedication to medical education—his tireless contributions to it, in practice, in research and through the written and spoken word—the Presidency of the American College of Physicians is a great responsibility now in most capable hands of leadership.

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Each tablet contains:

2-amino-2-methyl-1-propanol 8-bromotheophyllinate (Pamabrom*)50 mg.
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COMPOSITION: Bromaleate is a mixture containing a ratio of approximately 2 molecular weights of the compound Pamabrom (2-amino-2-methyl-1-propanol 8-bromotheophyllinate) to 1 molecular weight of pyrilamine maleate.

CAUTION: Federal law prohibits dispensing without prescription.

ACTION AND USES: This improved product was developed by Brayten specifically for the control of premenstrual tension. This

*U.S. Patent 2711411;
Patented 1955, Canada

B *Brayten*

condition is characterized by nervousness, irritability, weight gain, breast tenderness, backache, etc., during the premenstrual period.

ADMINISTRATION AND DOSAGE: In premenstrual tension, 2 tablets twice daily (morning and night) beginning when symptoms are expected, usually 5 to 7 days before menstruation. Stop medication at onset of flow.

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SIDE EFFECTS: Clinical investigation has shown Bromaleate, when taken in proper dosage, to be remarkably free from side effects. However, if drowsiness or dizziness is reported, reduce dosage. Caution hypersensitive patients against driving an automobile or operating dangerous machinery on the days medication is taken.

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PRECAUTIONS: Should not be used more than every 4 to 6 hours. Should not be given within 12 hours following rectal administration of theophylline or aminophylline. Do not use when cough preparations containing theophylline or aminophylline are being administered. Because of the diuretic

effect of Theophylline, children under four years of age should be watched for signs of dehydration. Caution is indicated in patients with severe renal and hepatic disease, myocardial damage, hyperthyroidism, and glaucoma.

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GLYNAZAN TABLETS, uncoated, 5 grains (equal to 2½ grains Theophylline N.F.); Adult dose—1 to 3 tablets every 4 to 6 hours; preferably administered with water after meals.

GLYNAZAN ELIXIR (contains alcohol 15%): A palatable elixir containing Glynazan 5 grains (equivalent to 2½ grains Theophylline N.F.) per 5 cc. teaspoonful.

Children over 12 years: ½ to 1½ teaspoonfuls every 4 to 6 hours. • 6 to 12 years: ½ to 1 teaspoonful every 4 to 6 hours. • 3 to 6 years: ½ teaspoonful every 4 to 6 hours. • 1 to 3 years: ¼ to ½ teaspoonful every 4 to 6 hours. • Adult dose: 1 to 2 teaspoonfuls every 4 to 6 hours.

HOW SUPPLIED: Tablets—Bottles of 100 and 1000, Elixir—Pint and gallon bottles.

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Dr. Kampmeier's selection as President of the American College of Physicians is an earned distinction for which congratulations and commendation are extended to him and to the College.

The House of Delegates of the Tennessee Medical Association in its official actions in Memphis on April 13th, unanimously communicated its best wishes and commendation to Dr. Kampmeier upon his assuming the office of President of the American College of Physicians. His outstanding qualities, leadership and respect of his colleagues has meant much to medicine in Tennessee and has reflected great credit upon the medical profession of the State and the Tennessee Medical Association.

JACK BALLENTINE
Executive Director

IN MEMORIAM

Piston, Robert Ervin, Johnson City. Died 9, May, 1967, Aged 49. Graduate of Vanderbilt University School of Medicine, 1943. Member of Washington-Carter-Unicoi County Medical Society.

Poole, Wallace Lamar, Johnson City. Died 1, May, 1967, Aged 66. Graduate of Medical College of Georgia, Augusta, 1924. Member of Washington-Carter-Unicoi County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on June 6th. The program, entitled "Medicare 1967" was presented by Dr. Thomas Alphin, Medical Department, Equitable Life Assurance Society, New York.

A session of the Society's House of Delegates followed Dr. Alphin's presentation at 8:00 P.M.

NATIONAL NEWS

The Month in Washington

(From Washington Office, AMA)

The Department of Health, Education and Welfare is making a broad study of prescription drugs which will be the basis of a recommendation on whether their costs should be covered by medicare when they are used outside a hospital.

HEW Secretary John W. Gardner appointed a task force of HEW officials to evaluate the study and make the recommendation. "Prescription drugs are an essential element of modern medical care," Gardner said. "In the last twenty-five years we have witnessed greater advances in the use of drugs than in the whole previous history of medicine. Today drugs and biologicals make possible the prevention and successful treatment of illnesses that were serious and frequently fatal.

"Yet for many older Americans the cost of needed drugs prescribed by a physician is a heavy burden, representing 15 to 20 percent of their medical care costs. Many older Americans find themselves with limited financial resources at the very time that age brings an increasing incidence of chronic disease and greater needs for medical care, including prescription drugs."

President Johnson directed last January that Gardner "undertake immediately a comprehensive study of the problems of including the cost of prescription drugs under medicare." Studies on some aspects of the question were started then and are near completion. Other specific studies are in various stages of progress.

But Congress may decide the issue before the full study is completed. The Senate Finance Committee will hold hearings this summer on such a medicare extension.

Dr. Philip R. Lee, Assistant HEW Secretary and Chairman of the task force, said that even if the study is incomplete, HEW will take a stand anyway when the Senate Finance Committee takes up the legislation.

One bill would finance medicare coverage of drugs by increasing from \$3 to \$4 the cost of monthly premiums for the voluntary doctor bills insurance program (Plan B) for

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persons 65 and over. Sponsored by Senator Joseph M. Montoya (D., N. M.) the bill would provide that generic drugs rather than trade name products be used whenever possible. Another bill is sponsored by Chairman Russell B. Long, (D., La.), the Senate's leading critic of the drug industry. It would spur generic purchasing for all federally-connected welfare programs.

Lee said that "the task force will examine a number of factors which are closely involved with the use of prescription drugs and with present and proposed methods of purchasing them. Many of these factors concern not only drug costs—and who pays them—but also the quality of medicare care."

Among the major areas listed for task force study: (1) Present patterns of drug prescription by physicians. (2) Present patterns of prescription drug use and expense by patients. (3) Present resources used to meet drug costs (including personal resources, aid from relatives, insurance, government assistance). (4) Present drug cost coverage programs (including federal, state, commercial insurance, union, and foreign programs). (5) Distribution systems (including independent pharmacies, central pharmacies, mail-order distribution, physician dispensing, and hospital dispensing). (6) Reimbursement factors (including determination of costs; co-insurance; deductibles; and limitations on dollar costs, drug quantities, and drug types). (7) Accounting methods (including nomenclature, coding, data processing). (8) Pharmacological aspects including generic equivalents vs. clinical equivalents. (9) Clinical aspects including formulary systems. (10) Legal and fiscal aspects. (11) Impact of proposed methods of purchasing prescription drugs on costs and quality of patient care, on medical profession, on pharmacy profession, on drug industry, on government.

★

Surgeon General William H. Stewart says that measles (Rubella) should be eradicated this year but other cripples and killers like venereal disease and cancer still baffle researchers. "This year, 1967, may well go down in history as the year of measles eradication in the United States," Stewart told a House Appropriations Subcom-

mittee, in testimony recently published. Stewart said the measles vaccine, licensed four years ago, is "bringing the disease to the vanishing point." The Public Health Service researchers now are working with an "experimental vaccine" trying to conquer German measles, he said.

Other health problems, such as cancer, heart disease and gonorrhea, continue however, to pose numerous research problems, Stewart reported. He told the Appropriations Subcommittee that the "fastest rising causes of death and disability" in this nation are emphysema and other chronic respiratory diseases. He said deaths from emphysema and chronic bronchitis have increased about nine times in the last 20 years, causing more than 60,000 deaths a year.

The federal health official, who estimated that some 300,000 people die each year indirectly from smoking, also reported that a new less dangerous cigarette may be developed. "There is reason to believe that the development of a less hazardous cigarette is potentially within reach," he said. But he put no timetable on development of this type of cigarette.

★

The American Medical Association supports all except one provision of legislation (S. 780) that would expand the federal government's role in the federal-state program to curb air pollution. In a letter to the Senate Subcommittee on Air and Water Pollution, Dr. F. J. L. Blasingame, executive Vice-President of AMA, pointed out that the AMA has been directing the attention of physicians and other health workers to the problems of air pollution through a series of meetings and its publications. He also noted that the AMA has supported such legislation in past years.

"In spite of past legislation and on-going federal, state and local programs which are carried on in cooperation with private industry, the American Medical Association recognizes that air pollution continues as a major environmental problem." Dr. Blasingame said. "Increased program emphasis on research and development in techniques of air pollution control and abatement is worthy of the support of the medical profession. The bill before you contains

one provision which we cannot support. Section 107 of S. 780 would require the Secretary of HEW to establish emission standards for certain industries. On the basis of present information and understanding of the relationship between emissions and the effect it has on surrounding air, such a requirement is unrealistic and would not accomplish its intended purpose."

MEDICAL NEWS IN TENNESSEE

Heart, Cancer, Stroke Program for Memphis Area

A Regional Medical Program for Heart, Cancer and Stroke has been approved for the Memphis area, with the College of Medicine to serve as the focal point. Official announcement of a \$173,119 planning grant has been received by Chancellor Homer F. Marsh, who is administrative officer for the application for funds made in 1966 through the Division of Regional Medical Programs of the National Institutes of Health.

Dr. James W. Culbertson, professor of medicine in cardiovascular diseases, has been named coordinator of the program. Prior to Dr. Culbertson's appointment, Dr. James W. Pate, professor and chairman of thoracic surgery, served as acting coordinator directing the initial planning phase of the program.

Dr. Pate will continue to serve as chairman of the program's committee on cardiovascular diseases. Others in the organizational framework: Dr. Francis Murphey, chairman of the committee on cerebrovascular diseases; Dr. Edward Storer, chairman on neoplastic diseases; Dr. Henry Packer, epidemiologist for the program; Dr. Richard R. Overman, chairman of the administrative committee on research.

In addition to his overall duties as coordinator, Dr. Culbertson will also serve as chairman of the committee on professional education within the program. Acting as an advisory group for the program will be the Mid-South Medical Council.

University of Tennessee College of Medicine

The University of Tennessee awarded 223 degrees at the spring commencement exercises, June 11th. The degrees were awarded to 78 graduates of the College of Medicine, 75 graduates of the College of Pharmacy, 44 graduates of the College of Dentistry, and the remainder to candidates from the College of Nursing and the Graduate School in Medical Sciences.

The Commencement address was delivered by Dr. Edward R. Annis, Miami, Florida, a past president of the American Medical Association.

★

On July 1st, the Division of Ophthalmology became the Department of Ophthalmology. Ophthalmology has been a Division of General Surgery since the Medical School was organized in Memphis in 1911. Dr. Philip M. Lewis, clinical professor and chairman of the Division of Ophthalmology, will continue to be the clinical professor and chairman of the new department. The Department of Ophthalmology embraces the training programs in the City of Memphis Hospitals, the Methodist Hospital, and the Memphis Veterans Administration Hospital.

Two Tennessee Physicians Receive Fellowship Grants for Pediatric Training

To assist a group of young physicians in their desire for further training, the Wyeth Fund for Postgraduate Education has again granted fifteen, two-year residency Fellowships in pediatrics. This is the 10th group of Fellows to be honored in the program established in 1958 by Wyeth Laboratories. Tennessee recipients and their places of residency which began July 1 are: Dr. Herman Andrew Crisler, Jr., City of Memphis Hospital, Memphis; and Dr. Milton Shelby Smith, University of Tennessee, Memphis.

The Wyeth Fund awards each doctor a Fellowship of \$4800 toward the expenses of undertaking advanced training in the medical care of children. The Fellows are chosen from physicians completing their internships, physicians leaving the Armed Services or the U. S. Public Health Service, and research Fellows. Each is free to

choose his or her place of residency from the institutions accredited by the Residency Review Committee of the American Medical Association, the American Board of Pediatrics, and the American Association of Pediatrics.

Dr. Amos Christie, chairman and professor, department of pediatrics, Vanderbilt University School of Medicine, Nashville, is a member of the Selection Committee which is headed by Dr. Philip S. Barba, adjunct professor of pediatrics, Temple University School of Medicine, and past president of the American Academy of Pediatrics.

Seminar in Psychiatry for General Practitioners

The sixth annual seminar in psychiatry for general practitioners, presented through the cooperation of the Tennessee Department of Mental Health, Vanderbilt University School of Medicine and the Tennessee Academy of General Practice, was held May 25th at Central State Hospital, Nashville. Principal speakers included: Dr. Richard C. Proctor, professor of psychiatry and head of the Department of Psychiatry at Bowman Gray School of Medicine, Winston-Salem, N. C., and Dr. Ray Feldman, chief of the General Practitioner Education Project, American Psychiatric Association, Washington. Subjects discussed were centered on the recognition of emotional factors in the patient who comes to the office of the family physician, psychopharmacologic drugs, goals of treatment, utilization of community agencies, criteria for referral, place of the state hospital in the total program, the new mental health law, and the future educational programs for physicians.

Memphis Academy of Internal Medicine

Dr. Irving Schulman, Professor and Chairman of the Department of Pediatrics at the University of Illinois was guest speaker at the meeting of the Academy on May 26th. Dr. Schulman, one of the foremost pediatric hematologists in the United States, is an authority on mechanisms for control of hemopoiesis.

The speaker for the October 27th meeting of the Academy will be Dr. Edwin Kil-

bourne, one of the country's leading clinician-virologists from Cornell University Medical School.

Vanderbilt University School of Medicine

A \$73,963 grant from the National Heart Institute has been awarded to Dr. H. William Scott, Jr. as principal investigator for the project. It is to continue for five years, the \$73,963 is allotted for the first year. The research will concern an intestinal by-pass in experimental atherosclerosis.



Speakers and their topics for the annual Vanderbilt Medical Alumni Association reunion June 9th and 10th were:—Harris D. Riley, M.D., Professor of Pediatrics at the University of Oklahoma School of Medicine, "The New Penicillins: Historical Note, Biologic Properties and Clinical use"; Fred Allison, Jr., M.D., Professor of Medicine and Associate Professor of Microbiology, at the University of Mississippi, "Cellular Aspects of the Immune Mechanism"; H. Earl Ginn, M.D., Chief of the Renal Dialysis Units at Vanderbilt Hospital and V. A. Hospital, "Intermittant Hemodialysis and Renal Transplantation"; Judson Graves Randolph, M.D., Surgeon-in-Chief at the Children's Hospital of the District of Columbia, "Gastric Surgery in Infants"; and William L. Caldwell, M.D., Director of the Division of Radiation Therapy and Associate Professor of Radiology at Vanderbilt, "Prospects for Radiotherapy." Paul W. Sanger, M.D., President of the VMAA, presided over the scientific program. Official welcome was given by Vanderbilt Chancellor Alexander Heard.



The Department of Pharmacology has joined forces with the National Institute of Mental Health and the Tennessee Department of Mental Health in setting up a Psychopharmacology Research Center at Central State Psychiatric Hospital to provide for research as to direct organic causes and biochemical processes of mental illnesses, and to develop more effective methods of treatment.

Dr. Allan D. Bass, Chairman of the Department of Pharmacology requested aid from NIMH 3 years ago to develop a small

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Beckley Mental Health Center

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W. E. Wilkinson, M.D.

Mental Health Clinic

Professional Building, Wise, Va.

Pierce D. Nelson, M.D.

installation at Central State with the assistance of the State. A year later, NIMH suggested a more complete research center in the area of psychopharmacology.

The Center presently occupies 8000 sq. ft. in the Cooper Building at Central State Hospital, and is gradually expanding and will include the entire building. The Center, now in operation for 2 years, has a staff of 5, each carrying on a separate project related to the organic nature of mental illness. Dr. Nat Winston, State Commissioner of Mental Health, states: "We feel that environment and behavior play a great part in mental illness, but until recently the organic aspect, perhaps just as important, has been neglected. What we have now at Central State is primarily an institute on organic research." Dr. Bass has said, "There is nothing quite like it anywhere else, no place which has a solid basic science research unit, with a psychiatric unit working along side. Within a university setting, this is the only place I know of that has this close collaboration between psychiatry and pharmacology." Four departments work together with the Research Center:—Pharmacology, Anatomy, Psychology, and Psychiatry.

The presence of the research group is directly responsible for the presence of two distinguished men at Central State Hospital. Dr. W. H. Tragell, presently Superintendent of the Hospital, came particularly because of the opportunity this unit provides. Dr. William E. Fann, presently at the VA Hospital, will join the Center as a psychiatrist interested in clinical psychopharmacology, holding joint appointments in the Departments of Psychiatry and Pharmacology.

The primary activity at the Center is fundamental research into the physiology of mental illnesses. Presently 5 investigators have projects in progress at Central State. Dr. Fridolin Sulser, Professor of Pharmacology, joined the Center in 1965, as Coordinator of Research Activities. He is concerned with the interaction of psychotropic drugs (which act within the brain), such as norepinephrine, dopamine and indolealkylamine derivatives, with physiological and biochemical mechanisms within the central

nervous system. In the same year, Dr. James V. Dingell, Assistant Professor of Pharmacology, joined the program to study drug metabolism in an attempt to gain an understanding of the action of drugs in the body which will lead both to better therapeutic drugs and better use of those presently employed. Assistant Professor of Pharmacology, Floris de Balbian Verster, came to the installation at Central State in 1965, with a main interest in neurochemistry, and to study the efficacy of such drugs as acetylcholine and glutamic acid in modifying artificially induced epilepsy in the brains of subject animals. Much of his work involves developing new experimental technics for studying the metabolisms of drugs within the brains of living subjects. By today's technics of implanted electrodes and cannulas a drug may be introduced into specified areas of the brain to permit *in vivo* studies. Dr. George Alan Robison joined the Center in 1966, as an Assistant Professor of Pharmacology, and is engaged in research to determine how drugs and hormones act at the molecular level. His investigations are testing the belief that certain mental disorders may be directly related to the presence in the brain of such compounds as Cyclic AMP, norepinephrine, and serotonin. In January, 1967, a neurophysiologist, Dr. Daniel Buxbaum, joined the group as an Assistant Professor of Pharmacology. His work is directed toward determining precisely where in the central nervous system, and how such narcotics as morphine act to relieve pain. The basic research carried on at Central State Hospital permits a program of training for medical and graduate students. In accordance with the original NIMH grant, 3 graduate students are presently engaged on projects at the Center, a number to be increased next year.

Facilities for advanced training in psychiatry will be improved when Dr. Fann opens the planned clinical research ward. This close cooperation between the ward and the laboratory will enable those in training better to care for the mentally ill and to learn of the latest and best methods which medical research can provide.

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PERSONAL NEWS

Dr. E. P. Muncy, Jefferson City, has been installed as President of the Tennessee Heart Association.

Dr. Louis G. Britt, assistant professor of surgery, and **Dr. Federico Fuste**, associate professor of pathology, University of Tennessee College of Medicine, have each been presented with a Golden Apple Award for excellence in teaching. The awards are presented annually by the Student American Medical Association.

Dr. Paul Spray, Oak Ridge orthopedic surgeon, is serving a sixty-day period as a volunteer physician in Viet Nam. This is Dr. Spray's fifth volunteer trip to an underdeveloped nation for the purpose of providing service. Under the volunteer Medico program, Dr. Spray has gone to Nigeria twice, to Algeria and to Jordan.

Dr. J. Lynwood Herrington, Jr. of Nashville was recently elected to membership in the American Surgical Association at its annual meeting at the Broadmoor Hotel, Colorado Springs, Colorado.

Dr. William G. Fuqua, Columbia, spoke to the Kiwanis Club on May 12th on the subject of "petrified hearts."

Dr. William A. Crosby, Dickson, has been elected to active membership in the American Academy of General Practice.

Dr. Edwin M. Levy, superintendent of Western State Psychiatric Hospital in Bolivar for the past 13 years, has resigned, effective June 15. Succeeding Dr. Levy is **Dr. James Druff**, assistant state commissioner for professional services. Dr. Druff was superintendent of Virginia's Western State Psychiatric Hospital before becoming coordinator of professional services for the State Department of Mental Health last January.

Dr. R. H. Kampmeier, Nashville, represented the American College of Physicians at the three-hundredth anniversary of the Royal College of Physicians of Ireland, in Dublin in mid-May.

Dr. Fred D. Ownby, Nashville, presented the Nat T. Winston Memorial Lecture on June 1st in Elizabethton. The program was sponsored by the Appalachian Heart Association and Home Federal Savings & Loan Association, in cooperation with the Washington-Carter-Unicoi County Medical Society.

Dr. Eben Alexander is the recipient of a bronze plaque from the Knoxville Academy of Medicine in recognition of his 57 years of service in Knoxville.

Dr. James William Shore has joined the staff of the Martin Medical Center. Dr. Shore has just completed two years of service in the Army at Fort Campbell, is a former student of the University of Tennessee in Martin, and is a graduate of U. T. College of Medicine in Memphis.

Dr. John E. Kesterson, Knoxville, has been named president-elect of the East Tennessee

Heart Association to succeed Dr. Richard A. Obenour in 1968.

Dr. Gould A. Andrews, chairman of the Oak Ridge Associated Universities medical division, represented ORAU at a conference on acute leukemia, sponsored by the American Cancer Society in New York, May 18-20.

Dr. Robert Carver Bone, Lebanon, has been elected to the Board of Trustees of Cumberland University.

The U. S. Senate has confirmed the promotion of **Dr. James G. Hughes**, chairman of the University of Tennessee College of Medicine's pediatrics unit, to brigadier general in the Army Reserve. Dr. Hughes has also been invited to become a member of the Surgeon General's Advisory Council for Reserve Affairs.

Dr. Jacob T. Bradsher, Jr., Knoxville, was guest speaker at a recent meeting of the Area 4, Tennessee Licensed Practical Nurses Association. His subject was "Diagnosis and Prognosis of Emphysema."

Dr. Harrison Shull, Nashville, was elected to the Governing Board of the American Gastroenterological Association at its recent meeting in Colorado Springs.

Dr. Harcourt Morgan, Belfast, has been elected to the Board of Directors of the Middle Tennessee Heart Association.

Dr. Sam Sanders, chairman and professor of otolaryngology, U. T., has returned from Mt. Sinai Hospital, New York, where he taught a week's course in rhinoplasty at the invitation of Columbia University. Dr. Sanders recently presented papers at the annual meetings of the Louisiana and Mississippi Society of Otolaryngology and Ophthalmology and the West Virginia Academy of Otolaryngology and Ophthalmology.

BOOK REVIEW

CLINICAL ENDOCRINOLOGY. By **Karl E. Paschkis, M.D.**; **Abraham E. Rakoff, M.D.**; **Abraham Cantarow, M.D.**, and **Joseph J. Rupp, M.D.**, all of the Jefferson Medical College, Philadelphia. 1008 pages, 339 illustrations. New York: Hoeber Medical Division, Harper & Row, Publisher, 1967. Price \$27.50.

Keyed to a rapidly changing field, this well-revised edition offers considerable help to the student and clinician in understanding and dealing with clinical endocrine problems. The sections are well written and concise with the information presented so as to be readable and usable as a reference text. Each section is complemented by an excellent bibliography of articles and references the reader will find helpful. There is ample discussion of gross and microscopic normal and pathological anatomy, physiology and pathophysiology of each organ as well as clinical manifestations and treatment of the syndromes each cause.

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New treatment methods are given plentiful coverage; an entire chapter is devoted to commercially available hormone preparations. New diagnostic tests are included with full scope of endocrinological essays, screening and evaluation procedures. Included in these, of course, are chromatin studies for genetically determined sex aberrations.

The book is well illustrated. There are 15 full-color photographs as well as other black and white photographs, charts and graphs. An unusually thorough and complete index allows optimal use of this excellent text. One could wish for a more detailed or thorough discussion of behavioral and psychologic manifestations of the dysfunctioning organs considered in the book because these aspects are given on passing discussion or are merely mentioned. Of course, such would require great amounts of space and would probably not be practical however useful it would be.

ANNOUNCEMENTS

Calendar of Meetings, 1967

State

Sept. 10-12	Tennessee State Pediatric Society, Downtown Holiday Inn, Chattanooga
Oct. 2-3	Tennessee Valley Medical Assembly, Chattanooga
Nov. 1-3	Tennessee Academy of General Practice, 19th Annual Scientific Assembly and Congress of Delegates, Gatlinburg Auditorium, Gatlinburg
Nov. 16	Middle Tennessee Medical Association

National

August 21-24	American Hospital Association, Chicago
Sept. 7-9	American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.
Sept. 14-16	American Thyroid Association, Michigan Union, Ann Arbor, Michigan
Sept. 15-23	American Academy of General Practice, Dallas, Texas
Sept. 22-30	American Society of Clinical Pathologists, Palmer House, Chicago

Sept. 29-Oct. 3	American Society of Anesthesiologists, Las Vegas, Nev.
Oct. 1-4	Neurosurgical Society of America, The Biltmore, New York
Oct. 2-6	American College of Surgeons (Annual) Conrad Hilton, Chicago
Oct. 5-7	Association of American Physicians and Surgeons, Sheraton-Lincoln, Houston
Oct. 21-26	American Academy of Pediatrics, Washington Hilton Hotel, Washington, D. C.
Oct. 22-23	American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Fla.
Oct. 25-28	Congress of Neurological Surgeons, San Francisco Hilton Hotel, San Francisco
Oct. 27-30	Association of American Medical Colleges, New York Hilton, New York
Oct. 29	American Association of Ophthalmology, Palmer House, Chicago
Oct. 29-Nov. 1	American College of Gastroenterology, Biltmore Hotel, Los Angeles
Oct. 29-Nov. 3	American Academy of Ophthalmology & Otolaryngology, Palmer House, Chicago
Nov. 5-8	American Society of Plastic and Reconstructive Surgeons, Waldorf-Astoria, New York
Nov. 9-11	Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas
Nov. 13-16	Southern Medical Association, Miami Beach, Florida
Nov. 16-18	Western Surgical Association, Ambassador Hotel, Los Angeles
Nov. 25-26	American College of Chest Physicians (Interim Clinical Meeting) Houston, Texas
Nov. 26-29	American Medical Association (Clinical Convention) Houston
Dec. 2-7	American Academy of Dermatology, Palmer House, Chicago
Dec. 4-6	Southern Surgical Association, The Homestead, Hot Springs, Va.

T M A

THE VIEWING BOX

The Improvement in the Keogh Law

Starting in 1968, physicians and other self-employed individuals will receive more favorable income-tax treatment on money that they invest in their retirement plans. In November, 1966, Congress enacted a law which—among a great many other things including partial support of presidential election campaigns from income-tax receipts—will allow the self-employed to deduct all of their annual contributions to their own retirement plans *up to a maximum of \$2,500 or 10 per cent of their incomes, whichever is smaller.*

Since 1963, when the Keogh Law first took effect, a self-employed person has been permitted to deduct *half* of his annual contribution to his own retirement plan, and that contribution could be no greater than \$2,500 or 10 per cent of his income, whichever was smaller. Probably because of the original restriction, only about 40,000 persons have chosen to participate in Keogh-type retirement plans, despite the original prediction, four years ago, that the program would cover 6,000,000 self-employed and their 9,000,000 employees. The recent liberalization is expected to encourage many more of the self-employed to utilize this method for themselves and for their employees.

The Law in Brief

Beginning with the tax year 1968 (for which a tax return must be submitted on or before April 15, 1969), a physician or other self-employed person can contribute 10 per cent of his earned income or \$2,500 per year, whichever is less, to a qualified retirement plan for himself, and can deduct the entire contribution from his taxable income. If there are individuals who have been in his employ for three or more years, he is required, with few exceptions, to include them in the retirement plan and to make annual contributions to it on their behalf. He may deduct the full amount of his contributions on behalf of his employees when he reports his income for federal tax purposes.

Earnings on funds invested in the plan ac-

cumulate tax-free, and the compounding of interest alone can create substantial growth by the time the self-employed individual and his employees reach retirement age. Sums withdrawn from the fund after retirement will be fully taxable, but doubtless they will be taxed at lower rates than would have been applicable in the years in which the contributed money was earned.

Often a doctor may have one assistant in his practice—his wife, who serves as his full-time nurse and secretary. Since her income is reported together with his on their joint return, and since a wife's employment by her husband is excluded from coverage under the Social Security Law, there was no advantage in a doctor's paying his wife a salary for her work in his office until the enactment of the Keogh Law. However, there is nothing in the Keogh Law to prevent a doctor from paying his wife a salary, provided that she works regularly at tasks for which he otherwise would have to hire someone else. Actually, if she has been on salary for three years or more as a full-time employee, the doctor *must* make regular contributions to his Keogh-type plan on her behalf.

Under a Keogh-type plan, contributions made on behalf of employees must be non-forfeitable. The plan can provide that if an employee leaves, he may immediately withdraw the contributions made on his behalf, or it can provide that he must wait until retirement age to receive benefits based upon those contributions. Under the non-discrimination rules, contributions on behalf of employees cannot be proportionately smaller than those which the employer makes for his own retirement.

What has been said thus far has related to deductible contributions made by the employer on behalf of himself and his employee(s). The employer and/or employees can make additional voluntary contributions to their respective accounts in the Keogh-type plan, or not, as each of them wishes. However, such annual contributions may be no greater than the employer's initial contribution to the account, and the sum so

contributed is *not* tax-exempt. There are severe penalties in store for anyone who puts sums of money into a Keogh-type plan in excess of the limits just stated.

Payments of benefits to an employer cannot begin until he reaches age 59½ ("insurance age" 60), unless he has been permanently disabled. Similarly, he can wait no longer than to age 70½ before starting to receive benefits. If he dies, the entire amount due him under the plan must, generally within five years, be distributed to his designated beneficiaries or used to buy immediate annuities for them. If financial necessity or something else prompts an employer to withdraw funds from his plan before attaining age 59½ or becoming disabled, he will be penalized.

Types of Plans That Qualify

Four sorts of plans satisfy the requirements of the Keogh Law. They are offered, respectively, by (1) life insurance companies, (2) banks, (3) mutual funds or medical organizations having contracts with mutual funds, and (4) the federal government.

The next issue of the JOURNAL will contain summaries of the merits and possible disadvantages of each of them, but regardless of what a doctor may read about Keogh-type plans in this magazine or elsewhere, or what he may be told by salesmen for the various types of proposals, he should take no hasty action. Each doctor should consult his lawyer, both because every doctor's situation—familial, financial, etc.—is unique, and because his attorney is well informed, impartial as regards the various types of investment, and devoted to his client's best interests.

We repeat: There is no need for haste. The Keogh Law has been in effect for four years, and it currently is no more attractive than it has been since 1963. Contributions up to 10 per cent of income, or \$2,500, whichever is less, become *fully* deductible for the first time in 1968, and whoever wants to start such a program to take advantage of last year's improvement has until December 31, 1968, to act.

(From the Journal of Iowa Medical Society, page 75, January, 1967.

* * *

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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

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Ames

Health Manpower To Meet Rural-Urban Needs*

ALVIN J. INGRAM, M.D.,† Memphis, Tenn.

How are the health care needs of the rural population being met today? What will be their needs in the future, and how will these be served? These are subjects of great national interest, and questions with which this conference is primarily concerned.

Before we begin our discussion, we should establish a perspective or framework for our thoughts and actions. In the first place, we are discussing the best system of government and the best method of delivery of medical care which has been devised so far. As we point out the weaknesses, defects, and flaws in the system, let it be known that our criticisms are intended to be constructive and in the interest of improvement of a producing system and not replacement by something new or untried. Secondly, we must be continually aware of the fact that it is the public that makes the final decision in our society. Our plans, whether they concern manpower recruitment, the patterns of medical practice, or community planning and action, require acceptance by the public before they are valid. An old political axiom remains true: What the public wants, it gets.

As we turn our attention to the subject of Health Manpower to meet rural and urban needs, it becomes clearly apparent that there has been a great increase in health manpower throughout the country in recent years, and this trend is certain to continue.

In the numbers of people employed, the health industry rates third at present and is destined to become first by 1970. And yet, we recognize that there is a shortage of practically all types of health workers to meet the demands of the public. The question naturally follows—what can be done about it, and who will do what in solving the problem? How will we bring demand into equilibrium with supply?

The American Medical Association has long demonstrated a deep and abiding interest in the subject of Health Manpower to meet rural and urban needs. This is evidenced by the total activity of its Councils on Rural Health and on Medical Education; by its many conferences on the subject; by the total program of the AMA Education and Research Foundation, especially the student loan fund whereby the AMA has made available more than 40 million dollars as loans to medical students and interns in the past 6 years; by the initiation of the Flexner Study; and more lately by the Millis Commission Study. Even more recently the Board of Trustees has appointed a Committee on Health Manpower which is charged to study the numbers, distribution, quality, and interrelationships of health manpower workers. Membership on this committee has been a valuable educational experience to me, and I hope and believe that it will be a significant contribution toward the solution of a large, important, and multifaceted problem.

Many other organizations have been active in the area over an extended period such as the American Hospital Association, the American Association of Medical Col-

*Presented at the 20th National Conference on Rural Health, Charlotte, North Carolina, March 10, 1967.

†Member AMA Board of Trustees and AMA Committee on Health Manpower.

leges, the voluntary health agencies, numerous professional and voluntary associations, and the federal government, especially the U. S. Public Health Service.

Despite these rather tremendous efforts, a shortage of health manpower does exist. In our society a shortage of goods or services means that the demand exceeds the supply. This imbalance can be corrected by either diminishing the demand—which in this instance seems unlikely as well as undesirable—or by increasing the supply. The supply of a service can theoretically be increased by either increasing the number producing the service, by increasing the productivity of the individuals who render the service, or by both.

There are many factors which contribute to the persistent high and increasing *demand* for health care services in our society. Social factors such as the progressive affluence of our society, the population explosion, the urbanization of our population, the increased speed of transport, the shortened work week, the mobility of our population, and many others make it easier for more patients to see their physicians. Thus each factor contributes to the increased appetite for health care services which the American public has shown lately.

An increase in both the general educational level of the citizenry, and in health education of the public has created a sense of awareness of the health field in the mind of the public, has undermined previously existing fears and superstitions in their minds, and has produced a heightened health expectation on the part of the public. All of these factors translate into an increase in the demand for health care services.

Advances in our ability to promptly determine the cause of the patient's complaint have given the physician an ability to administer specific treatment aimed at correction of the pathological state. This has resulted in a lowered morbidity and mortality, a state which in turn has caused there to be a larger number and proportion of the two groups who need and use health care most frequently—the young and the aged. The other side of the coin, however, is that medicine has become oriented more in the direction of institutions, instruments, and

machines. The new machines and instruments require personnel to operate them in addition to new education for the physicians who interpret and apply the observations.

The wide-spread acceptance and use of health insurance has demonstrated the desire and the ability of individuals to pay for their health care services while they are well rather than when they are sick. While much of the economic sting has thus been removed from sickness and disability, the fact remains that insured patients utilize hospital facilities one and one-half times more frequently than do the uninsured.

The current government policy is to become increasingly concerned with the health of all the citizens. This concern and interest will effect manpower in ways which cannot be accurately perceived now but which will surely be significant. The manpower implications of the recently enacted Medicare Law, the Title XIX or Medicaid Law, the Heart Disease, Cancer, and Stroke Amendments, the poverty program, and the multitude of other programs and activities of the federal, state and local governments cannot be accurately measured. It is certain that an increased demand for health care services will result from these programs, and since such services are already in short supply, it will further complicate the problem, increasing the competition for the limited services available.

The problems surrounding the *supply* of health care services can be discussed in four areas: the identification of roles, the recruitment of high quality personnel, the utilization of available personnel in the best interest of the patient and the provider, and education for excellence of performance.

In 1966 it was stated that the average annual wage for sub-professionals in the health industry was \$3,000, and for nurses and qualified technicians \$4,500 annually. When these figures are compared with wages and salaries in government and industry it is apparent that talents in our field are undervalued and the pay is inadequate to satisfy the needs of a breadwinner or the head of a family. Thus, financial considerations alone are probably enough to direct young, intelligent, and aggressive males

away from careers in fields of direct patient care, and certainly they serve as career roadblocks in even some of the more peripheral fields in the health care industry.

The personal satisfactions which arise from being at the right place at the proper time and rendering a much needed and highly personalized service to a fellow human being is compensation above and beyond pure financial payment. It provides a tremendous gratification to the ego, one which is frequently experienced in our lives, but not so frequently encountered in other walks of life. However, it is not fair compensation nor is it adequate. Rather it is "lagnappe," a word which means something additional or an extra dividend. All health workers are entitled to adequate dollar compensation for the goods and services they produce at the same rate as other citizens comparably situated in society. Each should be able to feel that he is an essential contributing member of a team, one whose talents are needed and appreciated, and one who is entitled to his "place in the sun."

These personal, financial, and social gratifications will be satisfying to the individual who has already been recruited and who renders the service, but recruiting an increasingly larger number of quality people into the field is another story. We must identify the people who have the proper interests, talents, and motivations, and then we should see that no artificial barriers such as sex, race, or lack of finances excludes them from entry into the health field of their choosing.

As the amount of scientific information accumulates and we attempt to divide the available information into vertical segments by specialization of our efforts, the team approach to health care delivery is needed and its expansion seems inevitable. To avoid confusion and minimize overlaps and reduplications of effort, we must develop accurate job descriptions for the various positions on the health care team. Such descriptions should include not only the essential prerequisites for entry into the field, but also a clear description of the steps by which a worker may move horizontally within the health field or vertically within his particular specialty.

Of course we must see that the job de-

scriptions are accurate, acceptable to the persons whose jobs are described, acceptable to the other members of the health team, and especially must the delegation of responsibility and authority be acceptable to the public or patients.

The field of nursing currently exemplifies a need for the mobility of a "career ladder." There are at least five different and identifiable levels of nursing personnel and skill, beginning with the nurses' aide and progressing upward by way of the LPN, the Associate degree nurse (junior college graduate), the diploma school graduate, and the baccalaureate degree nurse. An individual at any level who desires to move upward must begin with the beginners at each new level of skill and must continue to the completion of the full course to enjoy the benefits of the particular level. His previously acquired training or experience is not credited to his educational account at any point along the way. A similar situation exists in the relationship between occupational therapists and occupational therapy aides; between physical therapists, correctional therapists, and physical therapy aides. In these and other instances similar problems exist and similar solutions are implied.

It would appear then that there is a great need for experimentation in curriculum design. Careers with a particular vertical segment of health care could be arranged in a building block design, so that as an individual escalates upward or moves laterally, credit is given for previously acquired education and experience.

The subject of utilization of health manpower is important from many viewpoints. Some feel that the role of the pharmacist should now be redefined in view of the widespread use of prepared and packaged drugs and medications. They believe that the pharmacist now spends most of his time performing duties which are purely clerical, and his unique talents and distinctive education are being largely wasted. Some are concerned because significant numbers of female physicians become inactive after only a few years of practice. They claim that thus the limited medical educational facilities are being wasted by teaching people who will probably not repay the commu-

nity in service. Some are equally concerned with the "flight of physicians into research." They cite an increase in full-time faculty members from 11,000 to 17,000 physicians in the last five years and when this number is added to the rapidly increasing number of physicians working full time for all levels of government, we see that the numbers assume real significance. Finally, we are all concerned with the progressive decrease in numbers of physicians who are in general practice, family practice, or who serve as the primary contact physician. Certainly, if our attempt is to solve the health needs of the public, we must begin by talking about physicians who are available and who are accessible to patients for their personal health problems. The number, distribution, and effectiveness of members of this group continues to be a primary concern of the AMA.

Because of the many changes in the world around us, a practicing physician is able to see more patients, he is able to study them more thoroughly, and he can treat them in a given period of time more effectively today than at any previous given time in history. Despite this fact, the physician practitioner works longer hours, and under greater stresses and strains than his counterpart in the business world. There is every reason to expect a continuation of the progressive increased demands upon his time and his talents in the future.

In an attempt to conserve the physician's time and energies, so that his unique and distinctive talents could be used with a maximum of efficiency, Dr. Eugene Stead at Duke University developed his program for the education and training of a new member of the Health Team known as "the physician's assistant." This role is designed to provide a career opportunity to men working under the direction of a physician. They would perform reliably and responsibly certain acts which are currently practiced by nurses, technicians, and physicians.

At the Presbyterian Hospital in San Francisco a program is under way for the training of orthopaedic technicians. Most of the enrollees in the program are retirees from the armed services who have previously served as orthopaedic technicians or corpsmen. Similar experiments in the develop-

ment of new types of health workers are under way at such places as Montefiore Hospital, the University of Florida, Temple University, the University of Washington, the University of Colorado, and Harvard. In his message to Congress on February 8, 1967, President Johnson expressed an intent to subsidize certain pilot centers and requested 10 million dollars for the first and 33 million dollars for the second year of such a program to train physician's assistants.

As we proceed to develop the job specifications for this new assistant, it behooves each professional on the health care team to be certain that the job description is acceptable, realistic, and capable of personal satisfaction. We must also be certain that we are not developing a "Feldscher" or a second-class physician who is capable of functioning at a low level of professional competence as an independent entrepreneur. Proper licensure privileges must be developed, and the practicing physician employer must be convinced that such an assistant serves the physician's own best interests, if he is to function in the role conceived for him.

There certainly exists a pool of men in society who have demonstrated an interest in medicine in the past whose interest and talents are apparently not now used and who might be considered candidates for this new role as physician's assistants. For instance, the overall dropout rate from medical schools is estimated at between ten and twelve per cent, making four or five thousand individuals available each year. Approximately 10,000 applicants are refused admission to medical colleges annually, and finally the armed services estimate that more than 50,000 individuals with some training in a health field leave the military services annually. As far as I can determine, no one knows what becomes of the people in any of these categories nor what would be required to induce them to remain in the health industry. Certainly they have already demonstrated an interest in the field, and it is regrettable that a more coordinated attempt is not made to retain their services.

The nursing profession illustrates another set of problems dealing with manpower

utilization. It is estimated that nearly half of a nurses's time is spent performing non-nursing tasks for which they have little or no training, while the tasks for which they have been trained are frequently assigned to other individuals. In regard to their career profile many nurses follow a fairly consistent pattern: they work as nurses for approximately three years after graduation, withdraw from the field for 12 to 15 years as they bear and raise their families, and then resume their nursing careers at age 45 or 50. There are currently 500,000 registered nurses not professionally active, including many in this lay-out period. Interestingly enough, this pattern persists in some communities despite critical shortages. For instance, the Methodist Hospital in Memphis has 150 new beds built and equipped but not in use because of the shortage of nurses, and I am sure that this same situation exists elsewhere.

I am happy to say that these serious problems in nursing are finally beginning to receive the attention they deserve and definite improvement is occurring and in my opinion will continue along the line. Better pay and working conditions are becoming a reality. Efforts are being made to redefine the role of the nurse and her duty assignment, proper refresher courses are becoming available, and attempts are being made to lure more men into the field in the hope that their presence will upgrade pay and prestige, stabilizing the career opportunities. At this time what nurses need most from the rest of us is a sympathetic understanding of their problems and our advice and support as they pursue their aims and aspirations.

The pursuit of excellence must continue to be the hallmark of education in all of the health fields. While we need an increase in number in all categories, we must not sacrifice quality on the altar of expediency. The efforts of the Council on Medical Education in the development of standards and accreditation procedures in the health field are unique, most valuable, and a source of pride to all AMA members. As new skills and technologies develop, there will be further need for the development of standards and accreditation mechanisms to assure excellence of performance not only when such

people enter their chosen field, but throughout the period of their performance as a member of the health care team.

We have discussed the factors of the supply and demand for health manpower. There are many other areas surrounding the problem of health manpower, pertaining to both rural and urban areas, which would merit our attention and discussion had we the time to cover them.

There is a great need for studies to accurately determine the basic and essential educational prerequisites for each deliverer of health services. There is a great need for innovative thinking, experimentation, and modifications of curricula aimed at delivering different kinds of people for the health care team, as well as improving the quality of training which each of us now receives. There are special needs for study and experimentation in the organization, the design, and the pattern of delivery of health care services both in rural and in urban areas. Along this line, we continue to applaud the efforts of the Sears, Roebuck Foundation which we all know well.

One of the greatest needs in the health manpower area is a better definition of roles, authority, and responsibility of various groups interested in the subject. We need to recognize the unique features and the potential contributions of the government—federal, state and local, professional associations, voluntary health agencies, and the many others concerned.

The federal government has the capability and occasionally demonstrates its power to preempt an activity by its powers of appropriation. The federal government is assuming a new and different role in the Health area, a role described as "Creative Federalism." This term needs to be accurately and carefully defined as promptly as possible to prevent conflict of interests and wasteful reduplication of efforts and expenditures.

As we all move along in pursuit of our common objective—to make the highest possible quality of medical care available and accessible to the public, our patients—all interested parties should enter into constructive dialogue for the purpose of identifying and solving any problems

which might arise. The American Medical Association through its House of Delegates, its Board of Trustees, and its various councils and committees, stands ready to do its share and to go the extra mile in this re-

spect. This conference is another manifestation of our dedication and our commitment to this objective, and we hope that our mutual purposes will be served by this period of fellowship.

* * *

THE CORONARY CARE UNIT. Bernard Lown, A. M. Fakhro, W. B. Hood, Jr., and G. W. Thorn, Boston. J.A.M.A. 199: 188, (Jan. 16,) 1967.

The death rate from myocardial infarction 30 years ago ranged from 30 to 40%, and remains unaltered today. Arrhythmias account for 40% of deaths. Of these, about two-thirds are due to ventricular fibrillation and one-third to bradycardia, heart block, and asystole. Electrical catastrophes are usually not due to irreversible cardiac damage. Prompt treatment restores integrated cardiac activity and permits full recovery.

The coronary care unit segregates patients with an acute myocardial infarction in a specialized area. Reduction in mortality is accomplished through control and prevention of arrhythmias. Current emphasis is on prevention of cardiac arrest rather than treatment. Three derangements in rhythm are harbingers of cardiac arrest and require prompt treatment:—ventricular extrasystoles, bradycardia, and prolongation of AV conduction.

In the course of one year, 130 patients with proven myocardial infarction were treated in the Levine Coronary Care unit. Eighty-eight percent exhibited arrhythmias. Lidocaine was employed

to suppress ventricular ectopic beats. Ventricular tachycardia was similarly treated. If there was no response to a 50- and then a 100 mg. bolus of lidocaine, cardioversion was employed. In 5 such patients, electrical shock was used. *There was not a single instance of primary ventricular fibrillation* among 130 unselected consecutive patients. Quinidine was given for frequently recurring atrial ectopic beats. Digitalization was used for persistent atrial flutter and fibrillation. Atrial flutter lasting more than one hour was treated by cardioversion. Complete heart block requiring transvenous pacing developed in 5 patients.

The mortality in the coronary care unit was 11.5% and the overall mortality including patients dying after being discharged from the unit but while still in the hospital was 16.9 percent.

This data reported by Lown and associates emphasize the importance of identification and prompt treatment of so-called minor rhythm disturbances.

The focus of management in the coronary care unit is altered from resuscitation to prevention of the need for resuscitation. (Abstracted For the Middle Tennessee Heart Association by Laurence A. Grossman, M. D., Nashville.)

The authors describe their studies with oral contraceptives in terms of success or failures, side effects, and time of conception and normal pregnancies after discontinuance of "the pill."

Conception Following And During Therapy With Various Progestagens*

A. W. DIDDLE, M.D., GLENN F. WATTS, M.D., WILLIAM H. GARDNER, M.D.,
P. J. WILLIAMSON, M.D., and H. M. KELSO, M.D.,† Knoxville, Tenn.

This is a continuation study that deals with the effort time for conception following withdrawal of various oral contraceptive medications; and whether previously fertile patients were less fertile after being treated with oral progestagens.

Subjects

Thirteen hundred and ten women treated prior to August 1, 1966 were the subjects. None were afflicted with pelvic disease. Their ages ranged from 17 to 41 years with the majority in the 25 to 35 year range. Two-thirds of the women were under investigative study while the other third obtained their medication by prescription. Seven hundred and fifty-four were indigent and 556 nonindigent. One hundred and sixty-nine withdrew purposely to conceive. Two others conceived during their treatment and another 6, by hindsight, were pregnant when the medication was begun.

Patients under investigation were seen at least four times a year while those procuring their medication by prescription were seen at least twice a year.

Medications

Medications given are recorded in table 1. Note, a key number was assigned to each drug and used throughout the tables. More than one-fourth of the women under investigative study were purposely changed to another medication. A similar ratio of those receiving medication by prescription changed to different drugs because of undesirable side-effects. (Table 2.)

For the most part, the women in the

*Study supported in part by Parke Davis & Company and Eli Lilly Company.

†From the Department of Obstetrics and Gynecology, Memorial Research Center and Hospital University of Tennessee, and Department of Public Health of Knox County, Knoxville, Tenn.

Table 1

MEDICATIONS

Key Number	Medication	Trade Name	No. Patients Treated*
1.	Norethindrone acetate (2.5 or 5 mg.) with estinyl estradiol 50 mcg.	Norlestrin	521
2.	Norethindrone 5, 10, or 15 mg.	Norlutin	269
3.	Chlormadinone acetate 2 mg. with mestranol 0.8 mg.	C-Quens	507
4.	Norethindrone (2 or 5 mg.) with mestranol 0.1 or 0.6 mg.	Orthonovum	78
5.	Norethindrone acetate 5 or 10 mg.	Norlutate	57
6.	Norethynedrol 2.5 mg. with mestranol 0.1 mg.	Enovid	23
7.	Dimesthistrone 25 mg. with estinyl estradiol 0.1 mg.	Oracon	38

*Some women were treated with more than one drug at different times.

Table 2

CHANGE OF MEDICATION

Group	Type of Change	No. Patients
Study	No change	744
Study	Combination to Combination, one change	200
Prescription	No change	262
Prescription	Combination to sequential approach*	58
Prescription	Different combinations*	45
Prescription	Different sequentials	1

*Change 1 to 4 times per patient.

study group took medication 20 days and waited until the 5th day of the next menses before beginning a new cycle. Those who received their medication by prescription followed this method in some instances but more often took a tablet daily 3 out of each 4 weeks cyclicly. Not infrequently patients incorrectly timed their medication sometime during their treatment but no attempt was made to correct these failures.

Results

Table 3 shows the conceptions that preceded or occurred during the course of

therapy. Of special interest are 16 women. Six of these were pregnant before treatment was begun. Two others cycled their medications improperly. The remaining 8 women either denied they erred in their treatment (2 patients) or their conception was associated in some way with changing from one kind of progestagen to another (6 patients). We wonder about the reliability of the record of patient number 9, who denied error, for the reason that she is a chronic alcoholic. An equal number of patients were in the investigational and non-investigational series, respectively.

Table 3

CONCEPTION PRECEDING OR DURING THE COURSE OF TREATMENT

Patient	Cycles of Treatment	Drugs by Key Number	Remarks	Outcome
1*	37	1	Failed to take part of medication in 33rd cycle. Amenorrhea thereafter. Denied failure until 4th month of gestation.	Girl, term
2	2	3	Bleeding began on 17th day cycle of medication. Discontinued drug for 5 days. Then began 2nd cycle of treatment which was taken 20 days.	Undelivered
3*	3	6))		Girl, term
4*	1	1))		Girl, term
5*	3	3))	By hindsight conceived before onset of medication.	Undelivered
6*	1	2))		Boy, term
7*	2	2))		Girl, term
8*	3	3)		Girl, term
9**	30	2	Denied improper cycling	Boy, term
10	5	3	Denied improper cycling	Girl, term
11*	17	Switched from 4 to 1 to 3	Change from drug 1 to 3 April, 1966. Missed 9th pill of 15th cycle (4/18). Last menses began 5/4. 16th cycle medication 5/9 to 6/28 inclusive. 17th cycle medication begun on 6/4. Uterus size 2 months pregnancy June 27, 1966.	Boy, term

Table 3 (continued)

<i>Patient</i>	<i>Cycles of Treatment</i>	<i>Drugs by Key Number</i>	<i>Remarks</i>	<i>Outcome</i>
12*	25	Switched from 6 to 3	Changed from drug 6 to 3 in Dec., 1965. 23rd cycle of medication ended Apr. 8, 1966. Bled 4/13 and 4/14. Started 24th cycle of medication 4/18 through 5/7. Amenorrhea one week followed by 25th cycle medication, end of which time uterus size 10 weeks pregnancy.	Boy, term
13*	4	Switched from 1 to 7	Drug 7 began early April, 1966. On 6/16 uterus size of 8 weeks pregnancy. Medication cycled last 7 months by starting new cycle on 5th day of menses.	Girl, term
14*	32	Switched from 6 to 1 to 3	Changed from drug 1 to 3 Sept., 1965. Medication begun on 5th day of menses. Last menses began Feb. 15, 1966. Early pregnancy 4/23. Delivered 11/15.	Girl, term
15*	14	Switched from 1 to 3	Drug 3 begun Jan. 17, 1966, 5th day of menses. Cycled repeatedly to late March, when uterus size 8 weeks pregnancy. Delivered 11/7.	Boy, term
16*	46	Switched from 6 to 3	Changed to drug 3 in Dec., 1965. Last menses began Mar. 20, 1966. Medication cycled 20 days on, 7 days off through April and May. Early June uterus size of 2 to 3 months pregnancy.	Girl, term

*These patients took medication while pregnant for 1 to 4 months each.

**Patient a chronic alcoholic. For this reason we wonder about the accuracy of her record.

Table 4 gives the total cycles of our experience with various oral contraceptives.

There were 156 women who conceived after discontinuing therapy. Seventy-two percent were pregnant within 6 months after 91% were gravid at the end of 12 months effort time. (Table 5.) Fertility apparently was not modified adversely by any one of the progestagens.

Patients on treatment more than 2 years conceived more often after the third month following discontinuation of medication than did those treated less than 2 years. By the end of a year the majority in all groups were pregnant irrespective of the duration

of therapy or the type of drugs used previously.

At this reporting the outcome of the pregnancy is given for 172 women after therapy was discontinued. (Table 6.) All of those undelivered or lost were past the first trimester when last seen.

The relation of cycles of treatment correlated with conception for 169 women is given in table 7. The longest therapy prior to the present conception was 4.5 years.

Comment

We found that the average woman conceived as readily after the use of one of the progestagens as before their use. This con-

Table 4

CONTRACEPTIVE EXPERIENCE

<i>Drugs Used by Key Number</i>	<i>Experience in Patient Years</i>
1	1437.5
2	366.8
3	66.6
4	62.4
5	30.0
6	19.4
7	0.8
Total	1979.5

Table 5

EFFORT TIME FOR CONCEPTION

<i>Effort Time in Months</i>	<i>No. Patients Who Conceived</i>	<i>No. Patients Who Had Not Conceived When Last Seen</i>
1-3	80	4
4-6	29	2
7-12	29	3
13-24	11	3
25-36	4	0
37-42	1	1
Questionable	2	
Total	156	13

Table 6

OUTCOME OF PREGNANCY AFTER TREATMENT
WITH PROGESTAGENS

<i>Outcome Pregnancy</i>	<i>No. Babies or Fetuses</i>
Males, term	79
Females, term	64
Undelivered	9
Abortion	18
Lost	5
Term, sex unknown	2
Total	177*

*Includes 5 twin pregnancies, 4 sets living, the fifth a combined intrauterine and tubal pregnancy terminated in the third month by spontaneous abortion and salpingectomy, respectively.

Table 7

DURATION OF PREVIOUS TREATMENT CORRELATED
WITH SUBSEQUENT CONCEPTIONS

<i>Duration Treatment No. Cycles</i>	<i>No. Patients Involved</i>	<i>No. Pregnancies</i>
1-3	181	48
4-6	129	20
7-12	107	28
13-24	76	32
25-36	41	24
37-48	17	7
49-60	9	6
Questionable	3	3
Total		169

firms previous studies.¹⁻⁶ Others find that previous treatment with one of the progestagens often enhances fertility.^{1,3} We were unable to substantiate this opinion.

Compare our pregnancy rate during treatment to figures given in a previous study.⁷ Seven hundred fifty-eight controls had a like number of conceptions in 888.4 patient years while another 324 women had 324 conceptions within a period of 260 patient years prior to the use of norethindrone acetate.

Studies in lower animals and fowl indicate that ovulation will not be inhibited if the delay is several hours beyond the critical time.⁸ If the delay is beyond the critical time then the mechanism to prevent ovulation fails. Varying amounts of estrogen in the medication influences this process differently. We hypothesize that this situation holds true for the human, also, and explains the occasional failure to preclude pregnancy. It is believed the occasional patient, even though medication is taken as prescribed, has insufficient estrogen to inhibit pituitary action. In our experience, failure is more probable with change from one kind of progestagen to another. Others are of a similar opinion.⁵

We are uncertain that switching from the combination to the sequential drugs may be fraught more often with contraceptive failure than vice versa or from a combination

to a combination. Mears⁵ suspected the former relationship. Goldzieher and Maas⁹ refute it.

We found that the indigent woman took her pill as well, if not more consistently, than did the private patients.

Those patients receiving progestagens during early pregnancy had normal babies. Others report similar results.^{1,3}

Summary

Patients who received their medication by prescription appeared to have more contraceptive failures than did those under investigational scrutiny. It is believed this reflects motivation and less careful cycling of medication.

The effort time to conceive was not decreased after the administration of progestagens when compared with the pretreatment effort time. Most patients conceived within one year after their medication was withdrawn. At this reporting 172 women had conceived during, or after discontinuation of their medication.

There were 10 conceptions that occurred during 1979.5 patient years of contraceptive experience. Six of these pregnancies were associated in some way with the switch from one type of progestagen to another. Two others accompanied regular cycling of the same medication while the remaining two conceptions occurred with irregular cycling of medication.

Thirteen women continued to take one of the oral contraceptives one to four months each during the early part of pregnancy.

Twelve of the patients so far have had normal infants.

The final outcome after previous therapy with progestagens is known for 154 pregnancies. Five of the 154 were twin pregnancies or a ratio of single to multiple gestations of 1:31.

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The essayist reviews promising results in recent approaches to irradiation of tumors by fractionation of total dosage, thereby apparently reducing the incidence and severity of reactions in the normal tissues.

Time-Dose Relationships In Radiotherapy*

WILLIAM L. CALDWELL, M.D.,† Nashville, Tenn.

With the availability of modern megavoltage treatment facilities it is now possible, through elegant techniques devised with the help of radiologic physicists, to deliver large doses of radiation to localized tumors with minimal risk to adjacent normal tissues. Certain reversible side effects are still associated with such radiotherapy and there is even a rare situation of long term consequence; both problems are less frequent than in the area of kilovoltage therapy.

In spite of these advances, however, it is still not possible to cure, by the use of ionizing radiations, all patients who have regionally localized disease. Small tumors (e.g., carcinoma of the cervix, carcinoma of the larynx, head and neck tumors of squamous cell origin, carcinomas of the skin, etc.) can be permanently eradicated by irradiation with relative ease with 90% or better confidence. But as the size and extent of the primary lesions increase, there is greater difficulty in obtaining local control with radiotherapy (and with surgery, for that matter). Larger doses of radiation might be expected to yield a greater cure rate in these instances, but ordinarily at the risk of an increased incidence of reversible reactions and even long term damage to normal tissues.

Efforts are being made to improve the therapeutic ratio of ionizing radiations,—that is, to increase the relative effect on tumor tissue as compared to the effect on normal tissues. Means which have been instituted to accomplish this include:—the

use of high pressure oxygen or intra-arterial hydrogen peroxide in conjunction with irradiation**; administration of radiation sensitizers such as halogenated pyrimidines (BUdR); use of radiotherapy subsequent to or concomitantly with chemotherapy methotrexate or 5FU; or, changes in the spatial relationship of radiation in terms of the size and number of increments of radiation as well as the timing of these increments. It is in this latter area that I will make brief, hopefully pertinent, comments.

In the 1920's it was discovered by Regaud and Ferroux¹ that one could successfully sterilize the ram's testis without damaging the overlying skin by the use of multiple fractions of radiation. A single dose of radiation, adequate to sterilize the testis, was associated with irreversible reactions in the overlying skin. With this elementary radiobiologic data, multiple fraction radiotherapy was initiated in an effort to achieve sterilization; the premise was that tumor tissues perhaps more closely resemble testicular tissue than skin. Treatment regimens utilizing regularly spaced multiple fractions of irradiation proved relatively successful. Consequently, for the past three decades most treatments with radiotherapy empirically have been given on a 5 to 6 times a week basis with overall treatment times, for curative therapy, lasting from 4 to 8 weeks with total doses in the neighborhood of 6,000 rads.

It seems very likely that optimal time-dose relationships have not as yet been found. Such optimal techniques theoretically should result in a significant increase in the present local cure rate obtained.

Scanlon² of the Mayo Clinic and Sambrook³ of Swansea, Wales have both championed the use of split-course radiotherapy. With this technic a short course of radiation is given, and the patient is then allowed to rest for 2 to 3 weeks, and subsequently another course of radiation is given.

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†From the Department of Radiology, Division of Radiotherapy and Radiation Research, Vanderbilt University School of Medicine, Nashville, Tenn.

**In an attempt to increase the sensitivity of hypoxic tumor cells, ordinarily relatively resistant to radiation and particularly prevalent in large tumors.

It is thought, by proponents of this technic, that during the rest period there is considerable recovery of the normal tissues, but little, if any, regrowth of neoplasm. If this is indeed what occurs, with the initiation of the second half of a split-course of treatment the normal tissues have a relative advantage over that of the neoplastic tissues. Recent reports by Scanlon⁴ suggest that the split-course technic has a definite advantage although, since randomized studies were not conducted, it is difficult to be certain. My own personal experience, with limited use of this method, is that normal tissues do tolerate this treatment (3,000 rads in 2 weeks, 3 weeks rest, and another 3,000 rads in 2 weeks) well; it is still too early for even a subjective impression about the response of tumors to such a regimen. A nation-wide study involving many institutions is being organized to evaluate adequately the advantage of the split-course technic.

In some institutions treatment is done 3 times a week instead of the more usual 5 times a week and in most instances this treatment seems well tolerated.⁵ The advantage of this is that relatively large increments of radiation can be given at each fraction and from a radiobiologic standpoint this seems desirable. If treatment is given over the same overall time period, because of a smaller number of fractions of radiation, the dose is ordinarily reduced by approximately 10% with such a technic.

The advantage in clinical practice of large increments of radiation has been clearly shown by Finney.⁶ Patients with Stage T1 or T2 carcinomas of the bladder were treated by him at Newcastle-on-Tyne by three different dose schedules. All patients, randomly categorized as to dose schedule, were treated with a three field technic with moderate sized fields to a total dose of 6,500 rads. One group was treated with increments of 200 rads per treatment, another with 250 rads per treatment, and another with 300 rads per treatment, all patients being treated 5 times a week until a dose of

6,500 rads was attained. At 3 years there were 3 of 16 survivors in the 200 rad per treatment group, 4 out of 16 survivors in the 250 rad per treatment group, and 12 out of 16 survivors in the 300 rad per treatment group. This is an obviously significant difference. There was an increased incidence of gastrointestinal complications in the group treated with the 300 rad fractions, but in most instances the reactions were reversible; one patient required a permanent colostomy. A split-course technic might permit one to give large increment therapy with the rest period allowing reduction in the incidence of anticipated complications in the normal tissues.

Other time-dose relationships, based on future radiobiologic studies, should prove promising. Irregular scheduling of treatments might actually be more beneficial than regularly scheduled treatments.

Summary. With the innovation of new methods of radiotherapy, improvement in the local control of tumors is anticipated without an appreciable increase in reactions in adjacent normal tissues.⁵ Attempts to obtain optimal fractionation and timing of radiation doses seem an encouraging approach toward this end.

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Cylindromas Of The Head And Neck*

CHARLES W. COX, M.D., and THOMAS A. MAGUDA, M.D.,† Memphis, Tenn.

Introduction

Cylindroma is an uncommon tumor considered by most authorities to be of epithelial origin. It has been referred to by a variety of terms including adenoid cystic carcinoma, basiloma, and adenocarcinoma, cylindromatous type.

Cylindromas are generally thought to originate from mucous glands scattered throughout the mucosa of the lips, oral cavity, palate, pharynx, larynx, trachea, bronchi, nose, and paranasal sinuses. It is perhaps more commonly found in salivary glands, especially the major salivary glands which have large mucus producing acini. Rare cases of adenoid cystic carcinoma of the external auditory canal do not differ from such tumors occurring elsewhere in the body; however, some of these lesions of the external canal contain yellow pigment like that present in ceruminous glands, thus suggesting origin from a ceruminous gland.

Historical Review

Billroth,¹ who originated the term "cylindroma" in 1856, is given credit by most modern texts as the first to describe the tumor. However, Robin and Laboulbène² described the pathology and behavior of this tumor 3 years earlier. A long list of case reports subsequently appeared in the literature with various names applied to this lesion including myxosarcoma, basal cell tumor, basiloma, adenomyoepithelioma, and adenocystic carcinoma. Even today the term "cylindroma" is not accepted universally, although it is a short specific term and more generally used.

Histopathology

The diagnosis of cylindroma is made on the basis of a characteristic tissue pattern. It differs from many other tumors in that it

does not have typical cells of distinctive shape, size, and staining quality which are diagnostic. Cords, tubules, and circumscribed masses of uniform cells with deeply stained nuclei and scant cytoplasm are found, and mitotic activity is usually minimal. The cells may form a glandular arrangement in some areas with tubular lumen containing hyaline material. A "swiss cheese" appearance is frequently used in describing its histologic pattern. In many cylindromas there are gradations from the fenestrated pattern into more solid elements similar to basal cell epithelioma of skin. The photomicrograph exhibits the typical cribriform arrangement of basiloïd cells. (Fig. 1.)

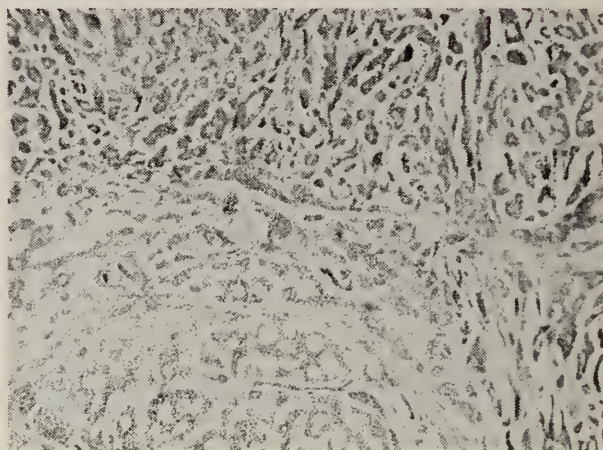


FIG. 1. Photomicrograph illustrating the typical cribriform arrangement of basiloïd cells.

Perineural lymphatic invasion is almost invariably present. The tumor infiltrates muscle and fascia, usually extending far beyond the gross margins of the lesion. It may progress through bone via the marrow spaces with little or no apparent destruction of bone architecture and thus produce no x-ray changes.

Cylindromas may resemble mixed tumors; but usually they are found to be relatively circumscribed, about 2 to 4 cm. in diameter, and reveal little tendency to encapsulation. The capsule, when present, is usually incomplete. The mass may be firm, yellowish or grayish white, having a homo-

*Read at the meeting of the Tennessee Academy of Otolaryngology, April 13, 1967, Memphis, Tenn.

†From the Surgical Service, Otolaryngology Section, Veterans Administration Hospital, and the Department of Surgery of the University of Tennessee College of Medicine, Memphis, Tennessee.

genous appearance with little tendency toward cystic degeneration or hemorrhage.

Many of the reports in the literature describe metastases from these tumors. They can spread to the regional nodes and later may evidence widespread metastases, especially to the pulmonary and skeletal systems.

Case Reports

Case 1. A 58 year old white man developed a bulging, ulcerated lesion in the roof of his mouth 12 years ago, which was treated by a full course of irradiation. He had no further difficulty until 1 year before admission when a painful, slightly ulcerated mass was noticed in the same area.

Examination revealed a firm, well circumscribed, 3 cm. mass involving almost the entire hard palate, and extending onto the soft palate. There was slight fullness of the left nasal cavity posteriorly. X-ray examinations of the facial bones were normal. A histologic diagnosis of cylindroma was made.

The hard palate, left antrum, and a major portion of the soft palate were excised. A prosthesis was later constructed by the Dental Department.

Case 2. A 43 year old negro man developed pain and bleeding from his right ear in 1963. Several months later a preauricular mass developed but subsided following antibiotics and drainage. A biopsy from the ear canal was reported as "adenoma, ceruminous glands."

In July 1965, pain and bleeding of the ear again occurred along with a right facial paralysis. He was referred to the Veterans Administration Hospital, Memphis, in November 1965. Examination revealed a whitish friable lesion filling the external canal. Two draining fistulas were present in the postauricular area.

Following a biopsy report of basal cell carcinoma radical excision of the entire ear, radical mastoidectomy, and partial parotidectomy was done. The pathologist reported adenocarcinoma, cylindroma type.

Incidence

Cylindromas were reported by Foote and Frazell³ to compose 4.4% of over 500 tumors of the major salivary glands. Dockerty and Mayo⁴ reported an 18% incidence of cylindroma among 81 cases of submaxillary tumors. A report of 210 parotid neoplasms by Quattlebaum⁵ revealed a 10% incidence of this tumor. However, in the nose, throat, and mouth the proportion of cylindromas to other neoplasms is higher. McDonald and Havens⁶ reported a 25% occurrence of cylindroma from 339 cases of malignant glandular tumors of these areas. Suehs⁷, in a review of the literature with case reports,

mentions 33 cases of tracheal and 6 cases of laryngeal cylindroma. Tauxe⁸, in a similar study, gathered 27 cases involving the nasal cavity and paranasal sinuses.

Cylindroma of the external auditory canal is quite rare. Pulec⁹ could find only 17 acceptable cases in the literature and added a series of 21 cases from the Mayo Clinic.

Signs and Symptoms

Symptoms depend on the location of the tumor. A mass, possibly of long duration, with an intact overlying mucosa, is suggestive of cylindroma. Pain is present in many primary tumors and in almost all cases of recurrent disease. Symptoms of nasal obstruction, irritation of dentures, proptosis, and dysphagia may occur. Sinusitis, epistaxis, facial paralysis, localized anesthesia, and visual disturbances are among the presenting complaints.

In cylindroma of the ear, no one part of the canal is more effected than others. There is usually no prior history of aural disease, and severe ear pain is an early and almost constant symptom. Local progressive growth of the tumor with repeated operative procedures is a common clinical characteristic.

Treatment

Although sensitive to radiotherapy, cylindromas are probably not curable by this form of treatment. The progress of the disease is not limited by anatomic planes. It is unlikely that a patient in whom recurrent cylindroma has developed can be cured by any mode of therapy. Incomplete resection appears to contribute to the development of distant metastasis.¹⁰ These features emphasize the generally accepted view that wide excision of the lesion offers the best chance of cure.

Summary

Cylindromas are adenocarcinomas which arise in mucous glands and their ducts and occur wherever these glands are found in the upper digestive and respiratory passages. These tumors may rarely occur in the external auditory canal, apparently arising from the ceruminous glands. A case report of cylindroma involving the external auditory canal is added to the few cases mentioned in the literature.

Cylindroma presents a clinical and pathologic picture somewhat different from other adenocarcinomas. It infiltrates widely involving almost all types of adjacent tissue. Marked perineural extension is a characteristic finding. Metastasis to regional nodes and also to distant sites may occur.

Although few patients have been cured, many survive for long periods with locally recurrent or metastatic disease. Roentgenologic therapy may be of some short term benefit, but surgical intervention appears to be the therapeutic method of choice.

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PROSTHETIC REPLACEMENT OF THE MITRAL VALVE: Preoperative and Postoperative Clinical and Hemodynamic Assessments in 100 Patients. Morrow, A. G., Oldham, H. N., Elkins, R. C., and Braunwald, E. *Circulation* 35: 962 (May) 1967.

The Starr-Edwards valve was employed for isolated mitral replacement in 100 patients with acquired mitral valvular disease at the National Heart Institute between 1961 and 1965. All patients had acquired mitral valvular disease. Among the 100 patients, 50 had pure or predominant mitral stenosis and 50, pure or predominant mitral regurgitation. Preoperatively 2 patients were in functional class II, 64 in class III, and 34 in class IV. All were studied before operation by right and left heart catheterization, and the clinical and hemodynamic abnormalities were defined in detail and related to the valvular malformation. Seventeen patients died at or shortly after operation. Seven others died in the late postoperative period.

The 76 surviving patients have been followed for intervals of 15 months to 5 years. Forty-seven are asymptomatic (class I). Twenty-six are in class II and 3 in class III.

Postoperative hemodynamic assessments uniformly demonstrated regression of pulmonary hypertension, and intracardiac pressures and cardiac index were usually normal at rest. Hemodynamic responses to muscular exercise, however, were abnormal in most patients. Since the total early and late mortality following mitral replacement among these patients was 24%, it seemed clear that the operation should only be recommended for severely disabled patients, those in functional classes III or IV in whom the operation can reasonably be expected to prolong life. If such patients are managed without operation the risk of death within two years is equal to or exceeds the risk of valve replacement. Important consideration must be given to the gratifying symptomatic and hemodynamic improvement that was shown to follow mitral valve replacement. Although present methods and prostheses employed for mitral valve replacement are less than ideal, continued application of the operation is clearly indicated in severely symptomatic patients since a large proportion of them will survive and be substantially improved. (Abstracted for the Middle Tennessee Heart Association, by Harold A. Collins, M.D., Nashville.)

Tetanus — An Old Problem, A New Dilemma*

Of all the poisons known to man, medicine is perhaps most concerned with that produced by tiny bacteria that go by the big name *Clostridium tetani*. For it is this poison, a sort of by-product of the growth of the microscopic blob of life, that causes the ravages of tetanus—commonly called lock-jaw.

Modern medicine has greatly reduced the prevalence of tetanus. In fact, its uncommonness has caused such public lack of concern that the national level of immunity has decreased in recent years. This in turn has increased the danger that the disease will start a comeback. To reverse this ironical situation, the American Medical Association has undertaken a continuing campaign of public and professional education aimed at getting the nation's protection against tetanus on a firmer footing.

Tetanus remains one of the most dangerous diseases that can strike a human being. No antibiotic or other drug can halt a full-blown case of the disease, and about 60 per cent of those afflicted die, according to Raymond L. White, M.D., former director of environmental medicine for the AMA. Tetanus never has been a mass killer as pneumonia and tuberculosis once were, he explains. But it does cause a particularly frightening form of death among the majority of those it strikes. "The fact is," Dr. White said, "practically no one needs to die of tetanus . . . or acquire the disease, for that matter. Yet each year we still receive reports of 400 or so cases." The lethal seeds of this insidious disease are found wherever civilization leaves its mark—in farm soil, city grit and household dirt. They have popped up in hospital operating rooms—tracked in by street shoes—and at one time were even isolated from surgical dusting powder and "sterile" vaccines.

While tetanus rarely haunts the hospital any more, its spores in many parts of America are nearly as common as dirt, and the chances are you're carrying some on your

skin right now. How is it then that tetanus is not a more common disease?

For one thing, physicians are trained and retrained to take special precautions. Almost every time he sees a wound—major portal of entry for the disease—the specter of tetanus arises in a doctor's mind. For another, tetanus is a finicky disease. Circumstances must be exactly right for it to strike. The drumstick-shaped micro-organism that causes tetanus is physically rather feeble. A breath of fresh air will kill it—a fact which has led some physicians to place tetanus victims in pressure chambers where more oxygen than normal can be forced into body tissues. The bacteria grows well, however, in the air-free intestinal tract of animals, including man. Within the intestines the bacteria offer no outright threat to the host. The danger lies in the spores or seeds produced by these bacteria which reach the ground in animal manure. In contrast to their parents, the spores are extremely tough. They are not affected by air and are even transported great distances by the wind. They can endure an hour in boiling water or germinate after sitting in wait for a victim for as long as eleven years—providing conditions are to their liking. In order to begin their chain of infection, tetanus spores must be injected into the living tissue of the body. This can be accomplished by a cut, scrape, scratch or even something as minute as an insect sting—things people usually don't see a physician about. Usually the spore is flushed out of a free-bleeding wound. But when there is little bleeding, as in puncture or crushing wounds, or when dirt or dead tissue within a wound keeps blood away from tetanus spores, then the seeds may hatch into the tetanus bacteria, which grow and liberate their poison.

There are two agents in this poison, both of which are probably necessary if the bacteria are to begin their destructive infection. One, tetanolysin, has the ability to break down red blood cells, thus insulating the bacteria and allowing them to multiply. Tetanospasmin, the other chemical in the

*A Science Feature Article prepared by the Communications Division, American Medical Association.

poison, attacks the nerve centers causing convulsions and muscular spasms—some so severe that victims have been known to fracture their own vertebra. Tetanospasmin is of such potency that a thin coating on a pin point would be enough to cause several deaths. Usually the first nerves to show evidence that tetanus toxin is at work are those of the head and neck, and particularly the chewing muscles. These turn rigid through spasm and give the disease its familiar name. Once the toxin has entered the nervous system, tetanus is largely out of reach of medicine. So, it becomes the physician's task to prevent the toxin from ever getting that far.

Medicine has two weapons to guard against tetanus. One, an antitoxin, is capable of neutralizing the deadly by-products of the tetanus bacteria once they have sprung to life within the body. The other tetanus toxoid, works something like a vaccine, stimulating the body into defending itself against tetanus. The antitoxin was discovered first, and was used extensively during World War I. It saved many thousands of lives, for the long-cultivated and heavily manured fields of Flanders were found to have a particularly heavy concentration of tetanus spores. The antitoxin, however, has one serious drawback. Animal serum is used in its manufacture, and some people are literally deadly allergic to animal serum. Therefore, antitoxin is employed only as an emergency measure and only after a person's sensitivity to serum has been determined.

Far more preferable is tetanus toxoid. It rarely produces dangerous side effects and, when injected like a vaccine, has protection already established should tetanus spores subsequently enter the body. World War II offered the best proof of the value of tetanus toxoid. Of the 600,000 Americans who were wounded in action only one developed tetanus. The situation was far different in the Japanese and German armies which continued to rely on the antitoxin. Thousands of Axis soldiers died because they could not be given the antitoxin in time.

"Despite the almost complete protection against tetanus offered by immunization, the disease remains a ticklish proposition in this country because millions of people have allowed their immunity to wane, and millions more have never been immunized," Dr. White said. "Most people don't seem to realize that one shot of tetanus toxoid or even a single series of shots, won't confer life-long immunity. Complete protection demands recurrent immunization." The need for continued protection is demonstrated by the ability of tetanus to sort of "out-wait" the body defenses. Spores have been known to lie dormant in the scar tissue of an old wound, or in bits of dead bone resulting from a complicated fracture, until a subsequent injury set them free to spring into virulence. Injury, even without external wounding, can also trigger the growth of tetanus bacteria in internal organs where spores can be carried by the blood stream from the site of a wound.

Immunity against tetanus is initiated by a series of three shots spaced out over eight weeks and followed by a booster dose within six to 12 months. This immunity is then maintained by booster doses every five years, and a similar booster dose after any injury that might cause tetanus. Protection should start early—one and a half to two months after birth—for the scrapes and falls of childhood offer tetanus many opportunities, Dr. White said. "In the nation today, tetanus mortality is highest in young children. This can only be true because so many parents fail to take advantage of tetanus immunization for their infants," he said.

While perhaps less open to infection, the adult population is so "extremely nonchalant" about tetanus that "an estimated three-fourths are lacking in immunity," according to Dr. White. "This," he adds, "is sheer neglect. With the new emphasis on outdoor living, with accidents on the increase and with the spore of tetanus in the dust and dirt all about us, we can only look forward to an increase in this deadly disease unless we make better use of our good sense, get immunized and keep immunized."

STAFF CONFERENCE

Heart Disease in Pregnancy

University of Tennessee Hospitals*

DR. SAM PATTERSON: This case concerns heart disease in pregnancy, and there are various facets of the problem that this case illustrates. The case will be presented by Dr. Arthur Fort. The members of the panel are Dr. John Q. Adams, Dr. Dan Copeland from the Division of Cardiology, Dr. Paul Sherman from the Division of Cardiovascular Surgery and myself, Dr. Sam Patterson from the Department of Obstetrics and Gynecology.

DR. ARTHUR FORT: Gentlemen, this is a very interesting but unfortunate case of a young woman who had severe heart disease which was organic in nature and complicated by pregnancy. This case will give us an opportunity to discuss several things:—first, the additional load which pregnancy imposes on a normal as well as an abnormal heart; second, the complex problems of managing and diagnosing organic heart disease in pregnancy from the view of the cardiologist, the cardiac surgeon, and the obstetrician; and third, the rapid advances in the field of cardiac surgery and heart disease with pregnancy.

This is the case of a 22 year old white woman, gravida 4, para 3, at 14 weeks' gestation. She had valvular heart disease principally in the form of mitral insufficiency and mitral stenosis. She had an enlarged heart, so enlarged that it compressed the recurrent laryngeal nerve causing hoarseness. She had a fixed cardiac output and was a functional late Class III.

That is her general story, but I will now unfold the case from the beginning. She was born apparently normal and had a normally active childhood. During her teenage years she played basketball on the high school team. At age 16, she married to get away from a rather poor home environment. At 17 years of age, she had an apparently normal uneventful pregnancy and delivery. She delivered a 4 pound infant which died at 2 days of age, presumably of prematurity. Her 2nd pregnancy occurred at age 18. At 24 weeks' gestation during that pregnancy she had the onset of orthopnea and dyspnea on moderate exertion

which continued throughout her pregnancy. Her local doctor did not listen to her heart and did not give treatment. She delivered a 6 lb. 5 oz. infant, which died on the second day of life gasping and blue. At that time she was a Class III cardiac and was given diuretics with symptomatic improvement. The onset of the heart disease, then, was at 18 years of age with no history of URI or anything suggesting rheumatic fever. During the interval between her 2nd and 3rd pregnancy, she continued having orthopnea, dyspnea with exertion, and easy fatigability. She could do her housework if she rested every 10 to 15 minutes.

Three years later at age 21, still a Class III cardiac she was carefully managed through her 3rd pregnancy without developing cardiac decompensation. She delivered a 6 lb. 4 oz. infant which is doing well at 15 months of age. Immediately postpartum, she developed severe congestive heart failure a few hours following delivery. She was hospitalized for 2 months, and moving from bed to chair was about all the exertion she could tolerate during this period. She was classified as a Class IV during this interval. About 2 months postpartum she improved a little and was able to do her housework providing she rested every 10 to 15 minutes. She was then in a functional Class III again.

About a year later at age 22 she became pregnant for the 4th time and was referred to the University of Tennessee at about 14 weeks' gestation. There had been no evidence of any progression of disease since she recovered from the puerperium of her prior pregnancy and she was able to do ordinary housework.

DR. PATTERSON: As we consider the patient for the first time, there are a number of questions that come to mind. Can this patient carry this pregnancy? What are her chances? What will be the stress on her cardiovascular system? What is the status of her heart lesion? What kind of heart lesion does she have? Can this lesion be corrected by cardiac surgery? And, should possibly the patient be sterilized if she has this baby, or if she does not have this baby? Dr. Copeland is our cardiology consultant who has interviewed the patient and reviewed her EKG's.

DR. DAN COPELAND: I think it was Sir James Mackenzie who first said that the loudness of a murmur should not intimidate one in caring for a pregnant woman but rather the functional state of the heart; that is, has it failed, how bad is the failure, and how difficult is it to control the failure? I think all tend to be a little frightened by heart disease in pregnancy. One reason is that it is very difficult to assess the symp-

*From the Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis, Tennessee.

toms of heart failure in pregnancy. For example, dyspnea, I think, occurs in something like 60% of all pregnant women without any heart disease. Most pregnant women have some ankle edema during later pregnancy, and frequently a little tachycardia. There may also be EKG. changes during pregnancy.

When I first saw this girl I was impressed that she was a severe cardiac. I first thought that she was not well digitalized because she had tachycardia at bed rest and some moist rales. We altered her medication, she became accustomed to being examined by us, and the heart rate slowed. The point of maximum impulse was way out at the anterior axillary line. Her chest film revealed a huge heart filling the left hemithorax. The predominant murmur was a loud systolic murmur. The liver was enlarged, and it was obvious that her normal nonpregnant activity was restricted considerably, so we called her a functional Class III cardiac, meaning that she could do ordinary activity but markedly limited by her cardiac disease. Since she was 14 weeks pregnant, I started looking for a way out. Now, had this represented a pure lesion of mitral stenosis, I don't think we would have worried very much about it because the cardiac surgeons now can perform closed mitral commissurotomy on pregnant women without a great deal of apprehension. It has been shown that the indications for mitral commissurotomy during pregnancy are the same as in nonpregnant women. There is some increased incidence of prematurity and of miscarriage perhaps, but there are few maternal deaths associated with closed heart surgery or with repair of a patent ductus. However, the problem was mitral insufficiency and, if any cardiac surgery were to be attempted, it would have to be done using the heart-lung bypass and would probably require a prosthetic valve. I did not think she could be handled medically through the pregnancy. There are series reported from Dublin and Boston where all grades of cardiac function have been handled through pregnancy, but the Class III or III 1/2, as with this lady, just do not do well on a medical regimen. She would require institutionalization, severe sodium and caloric restriction, and anti-

biotic coverage throughout pregnancy. So, though she was 14 weeks along at the time, it seemed that the easier way was to interrupt the pregnancy and then try to contend with the heart disease. I hasten to add that at 14 weeks the hemodynamic load of pregnancy has not yet been reached. When I first saw her, she was just as she would have been if not pregnant.

DR. PATTERSON: Dr. Copeland, although this patient is a Class III at 14 weeks, what do you think she will be at the end of this pregnancy?

DR. COPELAND: I think she would have been a Class IV by the 32nd week, if not before.

DR. PATTERSON: I would like for Dr. Adams to discuss cardiovascular physiology during pregnancy.

DR. JOHN Q. ADAMS: Alterations in cardiovascular physiology occur during all pregnancies. These alterations take place in normal patients as well as in patients with heart disease. A normal patient, however, is well able to compensate for the stresses placed on her heart.

There are two points of maximal cardiac stress during pregnancy, as reflected by the cardiac work load which parallels cardiac output. If one plots cardiac output in normal pregnancy, the first trimester shows no increase whatsoever. About the beginning of the second trimester there is an increase in cardiac output which reaches a maximum at about 28 to 30 weeks. This increase is about 30% over the nonpregnant level. This peak at 28 or 30 weeks is the first maximum the heart must endure. A patient with heart disease may have difficulty as this time is approached. After reaching this peak, spontaneous improvement usually occurs. If decompensation does not occur by 30 or 32 weeks, it probably will not in the latter part of pregnancy. Immediately after delivery, due to several factors we will not take time to go into, there is another rise in cardiac output. There is a sudden increase and then a leveling off, reaching a nonpregnant level about two weeks postpartum. This is the second point to watch, the immediate postpartum period. If decompensation is to occur again, this is the dangerous time.

DR. PATTERSON: Thank you, Dr.

Adams. Although Dr. Copeland has already said he does not think this patient ought to be allowed to carry this pregnancy, let us disregard this for the moment and ask Dr. Sherman to tell us his opinion regarding the cardiac lesion and to tell us if this is a lesion that is correctable by surgery. We have already been told that patients may have cardiac surgery during pregnancy, and we would like to hear from Dr. Sherman regarding the type of operation this patient could or should have and other lesions that might be correctable by cardiac surgery during pregnancy and the time at which these are best done during pregnancy.

DR. PAUL SHERMAN: Gentlemen, this is a bad case as you will see; but, nevertheless, the concepts we are going to develop as far as cardiac surgery is concerned are very important. We can start with what Dr. Adams said as far as the cardiac output is concerned. Surgery could offer this patient what? It could offer this patient a new mitral valve. That would be important because of the insufficiency. Early in pregnancy before extra stress occurs the lungs are getting 4+ regurgitant flow of pressure back into the lungs and on the right heart. There is a vicious cycle. She can't get blood out of the aorta. It is going back into her lungs, and the right heart is trying to compensate by crushing against the disease. As the blood volume increases in pregnancy, which is worse for the patient, the problem becomes infinitely worse on an exponential scale. She will not get worse slowly, but will suddenly. When she has a cardiac output of about 30% above normal, she will go from a Class III to a Class V+ overnight. Some develop irreversible failure.

The problem we are faced with surgically is what to do with this pregnant woman who is obviously headed toward disaster with this pregnancy. The percentages are so great that one cannot deny considering this from a surgical viewpoint. We are faced with the problems of increased cardiac output and increased volemia. We have mitral surgery to offer, and there are two categories—one is reconstruction of the annulus with annuloplasty and the other is replacement of the whole valve with a new

prosthetic valve. A third point that we have to consider is the pregnancy itself.

Let's take up this point first—should we perfuse this patient with a pregnancy or without? We are concerned that with perfusion an abnormal baby may be produced. Some take it with a grain of salt and say, "Oh, that's nothing, we perfuse these every day." Both attitudes are wrong. There are apparently some instances of abnormal children with perfused cases, but statistically not proved as to etiology. It may be that this is simply a manifestation of people who are sick with heart disease, and who have abnormal children. Can we perfuse them in the first place without losing the mother? Yes, we can! Has it been done before? Yes, it has! Has it been done with mitral disease? Yes, it has. Has it been done with left heart surgery—that is where you operate on the aortic valvular side or the aorta? Yes, it has! How long does the operation take? Forty-five minutes at least. Are these children normal? Instances that I have seen, yes, they are normal. Have people died under these conditions? Yes, they have, and they run more risk than those who are not pregnant.

Considering all this, one might ask, "What are you waiting for, doctor, why don't you get busy and operate on this woman?" But, we are faced with additional problems. We don't know from the outside, that is not looking at the valve, whether or not annuloplasty is indicated here, an operation which has a relatively bad reputation among cardiac surgeons as far as efficiency, long term longevity of the patient, and satisfactory results are concerned. To balance that off, there are new types of annuloplasties that have had better results over the past 3 to 4 years. However, the results are not as good as with prosthetic valves. There is probably about an 85% chance that we would have to put a prosthetic valve in this girl's mitral annulus and about a 15% chance that we could get away with an annuloplasty of modern type.

Under these conditions, what do we offer the patient? Long term anticoagulation might be required. So we toss that problem right back into the laps of Dr. Adams and Dr. Copeland. We agree to take this girl and perfuse her. We can accept the

risk to the pregnancy. It is a risk that is not unwarranted. If she wants the child or if there are other mitigating circumstances, such as religion, I would not refuse surgery and allow a physiologic catastrophe just because she is pregnant and could not be placed on the pump. But, we need anticoagulants about the fourth day postoperatively and to continue these throughout the pregnancy. If this is done, where do we stand?

DR. COPELAND: If you were able to do an annuloplasty, would you have to use anticoagulants.

DR. SHERMAN: No! I am sorry that I did not say anything about annuloplasty not requiring anticoagulation. But, with prosthetic valves, 10 or 15% of cases will accumulate thrombi that will embolize.

DR. COPELAND: Dr. Paul Sherman and Dr. Jim Pate can put in cage ball valves all day with very little difficulty and rarely with leakage now. They fit fine, but what happens after long followup?—Endocarditis develops around the valve mounts, clots appear on the valves, and the patients have to be treated by antibiotics as well as on anticoagulants for a long time to prevent septic embolization from the prosthetic valves.

DR. PATTERSON: We might mention anticoagulation in pregnancy. We have had bad experience with coumadin derivatives and no longer use them in pregnancy. The last two or three patients we carried on coumadin had intrauterine deaths. This has been reported throughout the country now, and patients who require anticoagulants during pregnancy should be heparinized. Dr. Sherman, did you say if this pregnancy is carried when the ideal time to perform cardiac surgery would be? How long before this peak load at 28 weeks? Is it 26 or 13 or 18 weeks?

DR. SHERMAN: Well, I don't think 28 weeks is a hard and fast number, but the sooner before the 28th week the better.

DR. PATTERSON: Don't we think it's probably best done after organogenesis and after the first 12 weeks, sometime before the 18th or 24th week?

DR. ADAMS: Any time during that period would be adequate. I would hesitate anytime beyond the 24th week, for sure, and preferably earlier than that.

I think Dr. Copeland and Dr. Sherman are about to ask us as obstetricians, "How about terminating this pregnancy, so we can get on with it?" I think that we have seen the pendulum swing back and forth concerning termination of cardiac patients in pregnancy. There was an era in which this was done freely, and pregnancies in women with heart disease were terminated. Then the internists became able to give medication very accurately, and we came through an era in which pregnancies were never terminated for heart disease. Now with the advent of cardiac surgery we are again admitting that there are patients that may require termination in order to be adequately treated. This pregnancy may well be one that we are willing to terminate in order to allow adequate cardiac therapy. Ten years ago we probably wouldn't have terminated the pregnancy. We would have hospitalized her for six months on a strict medical regimen.

We are getting a little more liberal now, and the pendulum is swinging back, I hope not back as far as it once was; but certain pregnancies, after consultation with cardiologists and thoracic surgeons, should be terminated. This is a very laborious decision and is certainly not taken lightly, but in this particular patient the obstetricians did agree to terminate the pregnancy so that cardiac surgery could be performed.

DR. FORT: May I ask a question before we go any further? How progressive would this patient's heart condition be if she were not pregnant? Also, how long would it take after surgery for her heart condition to reverse? She is now 14 weeks. Will she improve by 28 weeks' supposing that the operation is a total success?

DR. PATTERSON: Are you asking if she will be a Class I after surgery? Is that what you are saying?

DR. FORT: Yes.

DR. COPELAND: The answer to that lies in her heart size and the condition of her myocardium. The heart fibers are already stressed about as far as they can go, and that is irreversible.

Cardiac catheterization revealed that the intraventricular pressure tracings showed no compliance in the ventricular wall, which meant that contractility was already

very poor due to prolonged heart failure. The myocardium was almost surely severely damaged in this case and only modest to moderate improvement might be hoped for with the best technical results. Do you agree, Dr. Sherman?

DR. SHERMAN: Certainly we wouldn't want to operate and not feel very strongly that the patient was going to get better, barring some complicated problem with surgery per se. I would state very strongly that this would be better at 14 weeks. It certainly takes 6 weeks to get a substantial increase in intracellular protein that is involved intimately in metabolism, so one wouldn't want less than 6 weeks to really show better muscle strength, whether it is the gastrocnemius or the myocardium. At 14 weeks I would expect that it would certainly protect the lungs and the right heart and take the strain off of the left heart sufficiently to allow her to carry the pregnancy. That would be the hope with surgery.

DR. PATTERSON: When we had this patient originally, in poor condition, we thought that we would give her to the cardiologists and cardiovascular surgeons and they would help her for a while and then give her back to us in good shape. Now they have just caught the ball and thrown it back, saying, "We would like for you to consider termination of this pregnancy before we go ahead with any heart surgery." So the question then came back to our department regarding therapeutic abortion. There are several ways that this could be performed. She was a little far along for D & C, since the uterus was a good 14 weeks' size. Abdominal hysterotomy could be used, or transabdominal injection of a solution that would cause evacuation vaginally might be a good method. The solutions that have been used for this are hypertonic saline and hypertonic glucose, 200 ml. as a rule of 20% saline or 50% glucose. Dr. Adams, what is your opinion regarding this type of termination for this pregnancy?

DR. ADAMS: Well, I think that an intrauterine injection technic is ideal for this patient because it is an atraumatic means of inducing labor. We would otherwise have to do a hysterotomy, and this is a surgical procedure requiring anesthesia and may be

associated with excessive blood loss, infection and anything else among surgical complications. So, the least traumatic way of terminating this pregnancy would be best for the patient. Transabdominal amniocentesis would be ideal, and the two solutions mentioned are both usually effective. We have been concerned by reports in the literature concerning complications with hypertonic glucose. Heretofore, glucose has been the standard solution for injection in the uterus to induce abortion in these patients, but a report came out about six months ago of necrosis of the myometrium caused by glucose, indicating that glucose may not be innocuous and that saline is probably the best solution to use. We were hesitant to use hypertonic saline in a Class III cardiac so we thought glucose would be better.

DR. PATTERSON: There has been in the literature recently 3 cases of maternal death due to introduction of hypertonic glucose. These were associated with intravascular gas gangrene. I think at this time that we are glad perhaps we didn't know it then because we were hesitant to use hypertonic saline.

The question also arose as to the type of anesthesia preferred if hysterotomy were to be performed and about sterilization. The ideal type of anesthesia in a patient with this type heart disease would be local anesthesia. This can work out well many times. Nevertheless, on opening the uterus sometimes other anesthesia is necessary. Then as Dr. Adams mentioned the blood loss that occasionally may occur with abdominal hysterotomy was considered. It was debated, and we decided on transabdominal amniocentesis with injection of a hypertonic solution. Dr. Fort, exactly what was done?

DR. FORT: Hypertonic glucose was injected twice, 48 hours between injections. She aborted about 12 hours after the second injection.

DR. PATTERSON: In view of the complications reported since this case was handled, I think we would not advocate its use now. For injecting saline or for the simple diagnostic tap we use a small No. 20 needle, but a large No. 14 or 16 needle is necessary with thick glucose.

We performed a tubal ligation on the pa-

tient after consultation with the men on this panel. Dr. Copeland said he thought she probably would not revert to a much lower class cardiac with valvular replacement. She agreed to this very readily and so did her boy friend who was the father of this pregnancy. He had her legal husband come in to sign the papers. Sterilization was performed and anesthesia about a week after she aborted. Then we turned her back over to the cardiovascular surgeons, after we had evacuated the uterus and tied her tubes.

DR. SHERMAN: At this point we catheterized the left side of her heart to be certain she had no aortic insufficiency and to know when she went on the pump whether or not the aortic valve was competent or incompetent. Not that one cannot operate if it is incompetent, but one must know. Using the extracorporeal unit the blood comes from the inferior and superior vena cavae out of the heart by two large silastic catheters which have been placed in these cavae through the right atrium down into the superior and inferior vena cavae. The cavae are tied down around these catheters forcing all the blood through the catheters into the heart lung machine where it is oxygenated and the carbon dioxide is removed. It is then filtered and pumped back into the left femoral artery. It returns retrograde through the aortic circulation and laterally in the normal fashion from the aorta. These vessels being ignorant—they don't know that the blood is going the wrong way and not coming out of the heart. It even perfuses the coronaries, but it must not leak back into the left ventricle unless you know it because this leakage back into the left ventricle would overload the left ventricle which is already in trouble. The strain of an extra large volume being pumped into

her left ventricle could not be tolerated. So one must know whether the left ventricle needs to be vented, so that is why this left sided aortic catheterization is done with angiography.

This patient then was allowed to go home. She healed well from these procedures and returned for open heart surgery. At the time of open heart surgery which was approached midline through the sternum, the left side of the heart was opened where the right and left atria meet. In this case it was quite straightforward to do an annuloplasty with total closure and complete cessation of regurgitation with plenty of room for blood to go through giving a satisfactory cardiac output. She was taken to the recovery room but did not survive. There was no urinary output postoperatively, and it was noted on taking the cannula out of the femoral artery that the situation was diagnostic of having stripped the intima off the media of the femoral artery. Although her husband and fiancé refused autopsy, dissecting aneurysm apparently blocked the renal arteries. This is a matter of "happencance" in this particular case and not pertinent to the gynecologic or surgical aspects. Although she survived for some time in the recovery room and her cardiac output was satisfactory, she went into progressive acidosis and did not survive. The essential feature is that the girl wound up in a satisfactory class and probably could have carried her baby had this unfortunate complication not occurred with dissecting aneurysm.

DR. PATTERSON: Thank you, Dr. Sherman, Dr. Copeland, Dr. Adams and Dr. Fort. This case has served nicely to demonstrate many of the aspects of heart disease complicating pregnancy.



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TENNESSEE VALLEY MEDICAL ASSEMBLY

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MEMORIAL AUDITORIUM, CHATTANOOGA, TENNESSEE

Monday, October 2, and Tuesday, October 3, 1967

15TH ANNUAL ASSEMBLY

Monday, October 2, 1967

- 7:30 REGISTRATION BEGINS
- 9:00 PHILIP THOREK, M.D., Prof. of Surgery, Cook Co. Graduate School of Medicine, Chicago, Ill., *"The Acute Abdomen in the Aged"*
- 9:30 GRANT W. LIDDLE, M.D., Prof. of Medicine, Vanderbilt Univ. School of Medicine, Nashville, Tenn., *"Ectopic Hormones"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 H. M. POLLARD, M.D., Prof. and Chr., Dept. of Int. Med., Univ. of Michigan Medical School, Ann Arbor, Michigan, *"Management of Small and Large Bowel Inflammatory Disease"*
- 11:00 T. MANFORD MCGEE, M.D., Clin. Assoc. Prof. Dept. of Otolaryngology, Wayne State Univ. School of Medicine, Detroit, Mich., *"Vertigo and Its Interpretation"*
- 11:30 CARROLL L. WITTEN, M.D., Pres. American Academy of Gen. Practice, Louisville, Ky., *"Medicare—What Does the Future Hold?"*

NOON

- Luncheon Symposiums—October 2, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)
- No. 1 "THE PATHOLOGY OF DIABETES—1967"
Guest Panelists: SHIELDS WARREN, M.D.
VERNON KNIGHT, M.D.
- No. 2. "CHANGING PATTERNS IN CANCER OF THE G.I. TRACT"
Guest Panelists: PHILIP THOREK, M.D.
H. M. POLLARD, M.D.
- 2:00 B. H. SCRIBNER, M.D., Prof. of Medicine, Univ. of Washington School of Medicine, Seattle, Wash., *"Dialysis in Chronic Renal Failure"*
- 2:30 JOHN G. BOUTSELIS, M.D., Assoc. Prof., Dept. Obstetrics & Gynecology, Ohio State Univ. College of Medicine, Columbus, Ohio, *"Carcinoma In Situ of the Cervix"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 VERNON KNIGHT, M.D., Chr. and Prof. of Medicine, Baylor Univ. College of Medicine, Houston, Texas, *"New Studies on the Common Cold and Influenza"*
- 4:00 SHIELDS WARREN, M.D., Prof. Emeritus, Pathology, New England Deaconess Hosp., Boston, Mass., *"Pathology of Cancer of the Thyroid and its Relation to Radioactive Fallout"*

Tuesday, October 3, 1967

- 7:30 REGISTRATION
- 9:00 GUY L. ODOM, M.D., Prof. Neurosurgery, Duke Univ. Medical School, Durham, N. C., *"Intracranial Bleeding of Non-Traumatic Origin"*
- 9:30 LOUIS K. DIAMOND, M.D., Prof. Pediatrics, Harvard Medical School, Boston, Mass., *"Blood and Blood Replacement: Benefits and Hazards"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 ROBERT A. ROBINSON, M.D., Prof. Orthopaedic Surgery, Johns Hopkins Univ., Baltimore, Md., *"Anterior Fusion of the Cervical Spine"*
- 11:00 HARRY W. SOUTHWICK, M.D., Clin. Prof. of Surgery, Univ. of Illinois College of Medicine, Chicago, Ill., *"Management of Disseminated Breast Cancer"*
- 11:30 JAMES T. GRACE, JR., M.D., Asst. Dir., Roswell Park Memorial Institute, Buffalo, New York, *"Viruses and Neoplasms"*

NOON

- Luncheon Symposiums—October 3, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)
- No. 3 "DO'S AND DON'TS IN THE EMERGENCY ROOM"
Guest Panelists: R. A. ROBINSON, M.D., GUY L. ODOM, M.D., H. W. SOUTHWICK, M.D.
- No. 4 "LYMPHOMAS AND RETROPERITONEAL TUMORS"
Guest Panelists: J. T. GRACE, JR., M.D., HARRIS D. RILEY, M.D., J. E. LEWIS, JR., M.D., L. K. DIAMOND, M.D.
- 2:00 HENRY N. HARKINS, M.D., Prof. & Chr., Dept. of Surg., Univ. Washington School of Medicine, Seattle, Wash., *"Development and Advantages of the 'Combined Operation' for Duodenal Ulcer Incorporating Selected Vagotomy"*
- 2:30 HARRIS D. RILEY, JR., M.D., Chr. & Prof., Pediatrics, Univ. of Oklahoma School of Medicine, Oklahoma City, Okla., *"Measles Vaccine: Results of Studies and Use in Practice"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 EDWARD D. FREIS, M.D., Sr. Medical Investigator, Veterans Administration, Washington, D. C., *"The Treatment of Hypertension"*
- 4:00 J. EUGENE LEWIS, JR., M.D., Assoc. Prof. of Clin. Surgery, St. Louis Univ. School of Medicine, St. Louis, Mo., *"The Optimum Age for Elective Surgery in Children"*

From the
Executive
Director

E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

**Record Amount of
Business—Dr.
Ingram Re-elected**

REPORT ON ACTIONS OF AMA HOUSE OF DELEGATES—ATLANTIC CITY

● The AMA House was presented with 151 items of business on which action had to be taken, including a record total of 123 resolutions. Dr. Dwight L. Wilbur, San Francisco, was named President-Elect. Dr. Alvin J. Ingram, Memphis, was re-elected to the Board of Trustees for a three-year term.

The House heard outgoing President Charles L. Hudson, Cleveland, Ohio, urge physicians to "take the initiative and apply local solutions to local problems in order to persuade people that the proper function of government is to confine its activities to the support of private enterprise rather than to act as a competitor."

**Dr. Rouse
Inaugurated
President**

● Dr. Milford O. Rouse, Dallas, Texas, President, asked for more unity within the medical profession; greater inter-professional harmony with all other elements of health care; increased participation by physicians in the deliberations and programs of their medical associations; and the development of interest in matters of overall health.

**Therapeutic
Abortion**

● The following was established as policy of the American Medical Association: Recognizing that many physicians on moral or religious grounds, oppose therapeutic abortion, the AMA is opposed to induced abortion except when (1) there is documented medical evidence that continuance of the pregnancy may threaten the health or life of the mother, or (2) there is documented medical evidence that the infant may be born with incapacitating physical deformity or mental deficiency, or (3) there is documented medical evidence that continuance of a pregnancy, resulting from legally established statutory or forcible rape or incest may constitute a threat to the mental or physical health of the patient; (4) two other physicians chosen because of their recognized professional competence have examined the patient and have concurred in writing; and (5) the procedure is performed in a hospital accredited by the Joint Commission on Accreditation of Hospitals. It was determined that it is consistent with the principles of ethics of AMA for physicians to provide medical information to State Legislatures in their consideration of revision and/or the development of new legislation regarding therapeutic abortion.

**Government Health
Programs**

● Reaffirmed policy that "the medical profession has consistently held to two basic positions concerning personal health care and its financing: that no one should go without needed care because of inability to pay, and that responsibility for payment rests first on the individual himself and then, to the extent that he is unable to pay, on his family, the community, the county, the state, and to the extent that lesser levels of government are unable to finance the care, the federal government."

**Medicine and
Osteopathy**

● The House adopted the following recommendations regarding the medical profession's relationships with osteopathy: (1) Authorize the Board of Trustees to begin promptly negotia-

tions directed toward beginning official change of schools of osteopathy to schools of medicine. (2) Authorize the Council on Medical Education to undertake negotiations to establish means by which selected students with proven satisfactory scholastic ability in schools of osteopathy may be considered by schools of medicine for transfer into medical school classes.

AMA Disability Insurance Program

● The House adopted guidelines to aid in negotiating and executing the necessary contracts and in the future operation of the disability insurance program: (1) Provide ample assurance that disability claimants will be treated equitably and justly. (2) The carrier should guarantee benefits and premiums for a period of at least five years in order to assure the stability of the program. (3) Promotional literature be approved in advance by the Board or its designee with all measures being kept within the bounds of dignity and ethics. (4) A continuous ongoing review of the entire program should be maintained and that insureds be made aware of the necessity for a revision of the program at the end of the five year period. (5) An AMA Disability Insurance Committee should be continued and should provide a mechanism for claims review.

Political Action

● The House adopted a resolution "that medical societies be urged to investigate, document and report to the Law Division, all violations of Public Law 89-97 by officers and employees of the federal government and that a status report be provided to the House of Delegates at the 1967 Clinical Convention."

Generic Prescribing

● The AMA again reaffirmed its policy that physicians should be free to use either the generic or the brand names in prescribing drugs for their patients; and encourage physicians to supplement medical judgments with cost considerations in making this choice.

Other Actions

● . . . Referred to the Board of Trustees a proposal calling for an annual AMA sponsored education conference for state legislators . . . Reaffirmed its policy calling for enactment of legislation to require the internal revenue service to treat state-recognized professional associations on the same basis as corporations as it did before issuance of the so-called Kintner regulations in 1965 . . . Commended Congressmen who have introduced legislation which would authorize payment to a medicare beneficiary on the basis of a physician's itemized statement of charges . . . Adopted a resolution suggesting a feasibility study of converting Veterans Administration Hospitals into community hospitals with private medical staffs . . . Sought continued efforts to change certification and recertification policy while using admission and progress notes rather than special forms now in use in hospitals . . . Agreed to the need for attention to political and socio-economic education in undergraduate and postgraduate medical education . . . Referred to the Council on Medical Education a resolution from the Tennessee Delegation, suggesting a study to investigate regular presentation of political and socio-economic matters to the Student American Medical Association and other student groups . . . Reaffirmed its support of diploma schools of nursing and the other forms of nursing education in the action taken in support of the resolution submitted by the Tennessee Delegation.

The House commended hospitals conducting diploma schools for helping to meet the nation's health needs and urged them to continue the schools and increase enrollment, allowing the individual to choose the kind of nursing education he or she desires. The Reference Committee reported the need for 850,000 professional nurses by 1970 and that to reach this goal, nursing schools must produce 53,000 graduates per year by 1969.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Regional Medical Programs Advance

● With the recent awarding of a \$173,119 planning grant, the Memphis Medical Region joins with the Tennessee Mid-South Region in Nashville to give Tennessee two programs under P.L. 89-239 (Heart, Cancer & Stroke).

Vanderbilt University in cooperation with Meharry Medical College was given a planning grant of \$205,390 in August, 1966 and just recently submitted operational projects to Washington totalling over \$4.9 million.

The Memphis Medical Region will include all of West Tennessee West of the Tennessee River, a large part of Northern Mississippi, most of Eastern Arkansas, and small portions of Kentucky and Missouri. The total population of the area is approximately 2.4 million persons.

The Tennessee Mid-South Regional Medical Program covers all of Tennessee East of the Tennessee River and portions of Southern Kentucky. Approximately two million persons reside within the area to be served.

Thirty-four projects totaling just over \$3 million for the first year of operation was included in the Mid-South Regional Program's initial request to Washington. If approved, more than two-thirds of this amount or \$2.1 million will go to Vanderbilt and Meharry for 16 operational projects. By far the largest single project is a request by Meharry for funds to establish a "multiphasic screening center." Designed to evaluate the effectiveness of multiphasic screening, early diagnosis, and adequate treatment on a defined population group, \$849,825 has been requested for the first year of operation. An estimate of just over \$2.1 million will be required for the project over a three-year period.

Cities and towns other than Nashville for which project funds have been requested include Knoxville, Chattanooga, Columbia, Tullahoma, Crossville, Clarksville, Franklin and Oneida within the state, as well as, Murray and Hopkinsville in Kentucky.

An advisory group composed of 58 people has been appointed by Vanderbilt University for the Mid-South Regional Program. The Tennessee Medical Association has on the group one representative, Dr. W. O. Vaughan of Nashville.

State Legislation Affecting Health Care

● Physicians who serve on hospital utilization review committees as provided under P.L. 89-97 (Medicare) have been declared immune from liability with respect to decisions made on behalf of the committee so long as actions are made in good faith and without malice. The General Assembly adopted the above provisions during the 60-day legislative session and the bill was signed into law by Governor Ellington. Sponsored by TMA, the bill was introduced by Dr. Jack Peeples, of Memphis in the House and Senator John Wilder of Somerville in the Senate.

Also adopted and signed by the governor was a bill which removes blood and human tissues from the statutes pertaining to the implied warranties of merchantability and fitness of products. The amendment states that "the implied warranties of merchantability and fitness shall not be applicable to a

contract for the sale, procurement, processing, distribution or use of human tissues (such as corneas, bones, or organs), whole blood, plasma, blood products or blood derivatives. Such human tissues, whole blood, plasma, blood products, or blood derivatives shall not be considered commodities subject to sale or barter, and the transplanting, injection, transfusion or other transfer of such substances into the human body shall be considered a medical service."

Dr. Peeples, along with nine others, introduced the bill in the House as did Senator Wilder and two others in the Senate. The TMA sponsored legislation is now in effect.

Workman's Compensation Revisions Adopted

● Several revisions in the Tennessee Workman's Compensation law were adopted during the 1967 session of the General Assembly.

The most important change relative to medical care was an amendment which increased the amount payable for care from \$1800 to \$3500 and the amount available through court authorization from \$700 to \$1500. Another amendment provides that the period during which the employer shall furnish free to an injured employee medical and surgical treatment is increased from the present one year to two years.

Physicians and hospitals in furnishing to the employer or insurer a complete medical report on an injured employee shall not be required to first obtain consent of the employee and such physicians and hospitals shall incur no liability as a result of submitting such medical report.

The law was further amended by inserting after the words "The injured employee shall accept the same; provided, that the employer shall designate a group of three (3) or more reputable physicians or surgeons" the following words "not associated in practice."

The maximum weekly benefit was increased from \$38 to \$42 and the maximum benefit payable for death or total permanent disability was increased from \$14,000 to \$16,000.

Medical Laboratory Licensure Act

● The Tennessee General Assembly recently adopted a proposal by the Tennessee Department of Public Health which provided for the licensing of all medical laboratories and lab personnel within the state. Excluded from the provisions of the act are laboratories operated by physicians solely as an adjunct to the treatment of their own patients. If any referred work is received by these labs however, all provisions of the new law will apply.

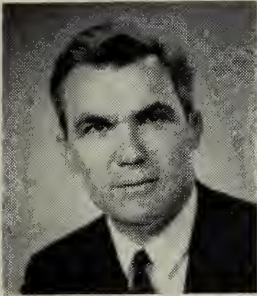
The Medicare law provides certain standards medical labs must meet to qualify as a provider of services. In those states that have not established standards for medical labs, the Federal Government is expected to do so.

The new Tennessee Law provides for the establishment of standards for the operation of medical laboratories and for the licensing and payment of annual licensing fees by medical labs; the licensing of medical laboratory personnel; annual registration and payment of fees for licensing of lab personnel; the establishment of standards that lab personnel shall meet and standards that schools of laboratory medicine shall be required to meet and maintain.

The Commissioner of Public Health has the authority to appoint one or more advisory committees to assist in the drafting of rules and regulations to govern medical laboratories, medical lab personnel and the training of medical lab personnel within the state.

President's Page

Health Care Costs



DR. KRESSENBERG

The progressive rise in health care costs in recent years has been the subject of much debate in many conferences in the past few months. The recent one in Washington called by President Johnson to discuss this matter emphasizes the importance that he attaches to it. Health, Education and Welfare Secretary John Gardner, recently called on the medical and allied professions to overhaul long-established practices and search for new and better and less expensive ways of doing things. Dr. Milford O. Rouse, recently-installed President of the American Medical Association, commended the Administration for calling the conference. I am sure that many more conferences and analytical studies of this problem will be done in the succeeding months.

It is only proper that we point out for all to see some of the factors involved in rising health care costs that I have seen no mention of elsewhere. First, we must all face the fact that the cost of all consumer services and goods is tied directly or indirectly to the cost of operation of the Federal Government and the various state and local governments. Certainly as long as the government continues to spend more money and increases taxes more and more, there can be no doubt that in order to keep profits at the same level, increased prices will be necessary. As government spending spirals upward and onward, consumers of services and goods will be forced to pay higher taxes, and also higher prices for the services and goods they purchase, because the seller of these goods and services will need to increase his prices to pay additional taxes.

We would be making a grave error, however, if we did not face the fact that we as physicians have a considerable and direct influence on the cost of medical care. As I have said before in these pages, the time for introspection and critical self-examination is upon us and we can no longer afford the luxury of complacency and detachment from the socio-economic problems of medical care. We must lay our traditional concepts of the practice of medicine out on the dissecting table and examine its form and structure with courage, daring and an open mind. We must have the courage to cast aside the concepts that are useless and wasteful, the daring to undertake new methods, and the open-mindedness to accept new ideas, whether they come from politicians, educators, other professionals, or other sources.

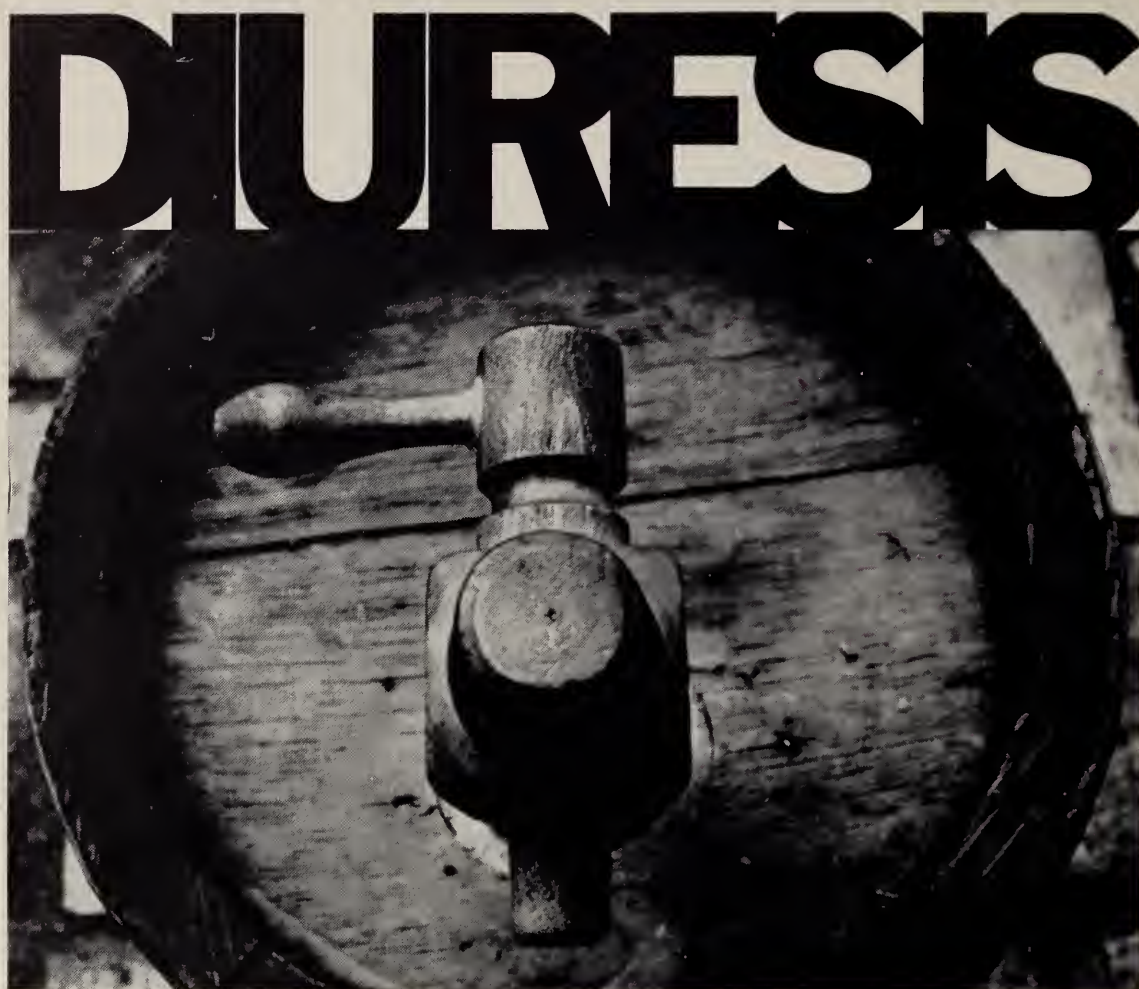
One of the traditional concepts which we might examine critically is the idea that whenever we save a dollar in overhead this means another dollar in our take-home pay. Perhaps we should possibly share this dollar with the patient. I am sure each of you can think of many other ways in which some of our traditional concepts might be challenged and examined with the result that more and better quality medical care could be given to consumers at lower cost to the physician and to the patient. We all would agree that it would be much better for the impetus for these changes to come from within our profession rather than from without. The AMA House of Delegates last June re-emphasized the responsibility of physicians individually and collectively to help their patients in every way they can to obtain higher quality health care at the lowest possible cost.

A candid, searching examination of ourselves and our methods of practice is in order, and I suggest that the time to begin this activity is now.

Sincerely,

K. M. Kressenberg, M.D.

President



MERCUHYDRIN[®] (meralluride injection)



Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"¹ established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in $\frac{1}{2}$ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell² has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967*, p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

hospital, a detailed explanation of the procedures involved in area physicians admitting patients, and an introduction to the new Detoxification Unit.

Memphis-Shelby County Medical Society

The Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on July 11th. Guest speaker, Brig. General George J. Hayes, Office of the Surgeon General, Washington, D. C. discussed "Medical Corps in Action in Vietnam." The presentation was followed with a session of the House of Delegates at 8:00 P.M.

Roane-Anderson County Medical Society

A dinner meeting of the Roane-Anderson County Medical Society was held in the cafeteria of the Oak Ridge Hospital on June 27th. The scientific program, entitled "New Siphoid Storage Disease," was presented by Dr. A. Rahman of Baltimore, Maryland.

Chattanooga-Hamilton County Medical Society

Members of the Society heard an interesting presentation entitled "Office Management" by Mr. Richard Peterson, Professional Management Consultant, at its meeting on August 1st. The scientific portion of the program was presented by Dr. Phillip Thorek, Clinical Professor of Surgery, University of Illinois, Chicago. Dr. Thorek's subject was "The Acute Abdomen in the Aged."

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

John W. Gardner, Secretary of Health, Education and Welfare, called on the medical profession and others in the health field to "search for new and less expensive ways of doing things." This was the main theme of his talk at the windup session of a

two-day National Conference on Medical Costs attended by 300 physicians, hospital administrators and other leaders in the various aspects of health care. He said the conference discussions "reflected a universal recognition that change is necessary. We cannot go on as we have in the past. New patterns will be necessary. Those who entertain some apprehension as to what the new patterns will be had better plunge in and experiment with their own preferred solutions. . . . Standing back and condemning the solutions that others devise won't stem the tide of change . . . there is not yet any agreement as to what a more perfect system would look like. It seems likely that we will go through a period of experimentation and in true American fashion may end up with several variations in different parts of the country, suiting local preferences and conditions.

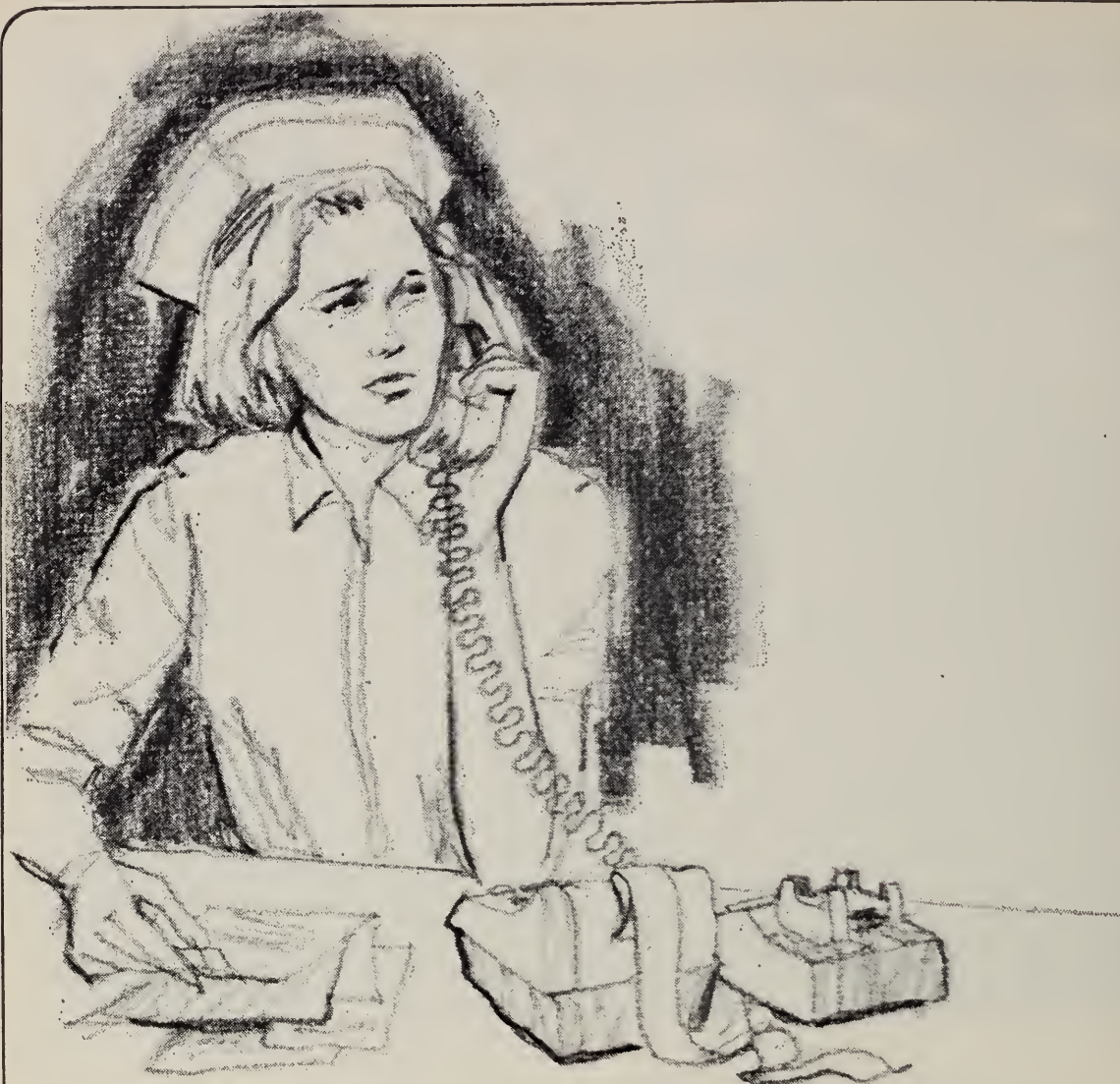
"Whether the health care system or the future should develop around the hospital as an organizational focus, or around the payment mechanism, or around group practice plans, or around all of these in some sort of collaboration with State health planning councils—or whether other variants will emerge—is still a wide-open question. . . .

"Essentially . . . the challenge is before the health profession. They must join the search for solutions. They must be willing to re-examine and overhaul long-established practices. The search for new and better and less expensive ways of doing things must be carried on by hospitals, medical schools, community agencies, and by the thousands of individual physicians serving the health needs of people. . . ."

Acceptance of such responsibility by those in the private sector, Gardner said, "is the best insurance against the government having to shoulder more than its share of corrective measures."

Citing appointment of an advisory committee to study hospital effectiveness, Gardner said that HEW will do its part in the search for more efficient practices. The committee is to report by the end of this year.

Dr. Milford O. Rouse, president of the AMA, commended the Administration "for showing its concern for rising health care



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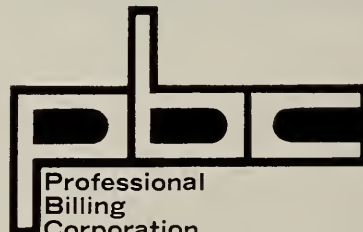
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costs by calling a national conference on the problem. "The American Medical Association and its member physicians pledge to accept their responsibilities in finding solutions to this vital problem. We expect that other full members of the health team—dentists, hospitals, nurses, pharmacists and pharmaceutical companies, the insurance industry and others—will do likewise.

"We hope the Administration will also accept its responsibility to find ways to ease the burden of inflation which contributes substantially to inflating the cost of medical care. We hope the Administration will call a moratorium on new health legislation until existing programs can be critically evaluated to eliminate overlapping and duplication and to achieve maximum conservation of tax funds. We hope available tax money, particularly in the health field, can be used to help those who really need help while allowing our more fortunate citizens to accept responsibility for their own care."

★

Congress passed and President Johnson signed into law a bill that extends the program of grants for the construction of community health centers for three years (until June 30, 1967.) It authorizes the appropriations of \$50 million for fiscal year 1968 and \$70 million for 1970.

The amended law also extends the program of grants for the initial staffing of community mental health centers for an additional two years (until 1970) and authorizes the appropriation of \$26 million for fiscal 1969 and \$32 million for fiscal 1970. An appropriation of \$30 million already was authorized for fiscal 1968.

★

President Johnson signed into law legislation extending the draft for four years. It includes a provision continuing special pay for physicians and dentists. The new law also continues the authority to defer medical students until completion of internship. In the future, foreign physicians in this country will be liable to draft up to age 35—the same as for Americans. Under the old law, foreign physicians were exempt from age 26.

The present blanket military exemption for public health service officers serving on loan to other agencies such as Food and

Drug Administration was removed despite protests by the agencies involved. Such assignments with draft exemption can now be made only to the Coast Guard, Bureau of Prisons and Environmental Services Administration. The American Medical Association had asked Congress to allow no draft exemptions for non-military service.

★

The president of the American Medical Association said that Sargent Shriver, Director of the Office of Economic Opportunity, was in error when he accused the AMA of being opposed to medical care for the poor because the AMA is opposed to the OEO's slum health care centers.

Milford O. Rouse, M.D., Dallas, Texas, the AMA president said the AMA is opposed to the OEO projects because the health care problems in the slums can be taken care of under existing programs, particularly Medicaid.

"There is already too much proliferation of wasteful, overlapping federal health programs," Dr. Rouse said. "Also of concern to physicians is the fact that at times it seems that government is too quick to set up health care programs without consulting with those who know most about health care—physicians."

The AMA president also said Shriver was misinformed about AMA's position on helping those who need help.

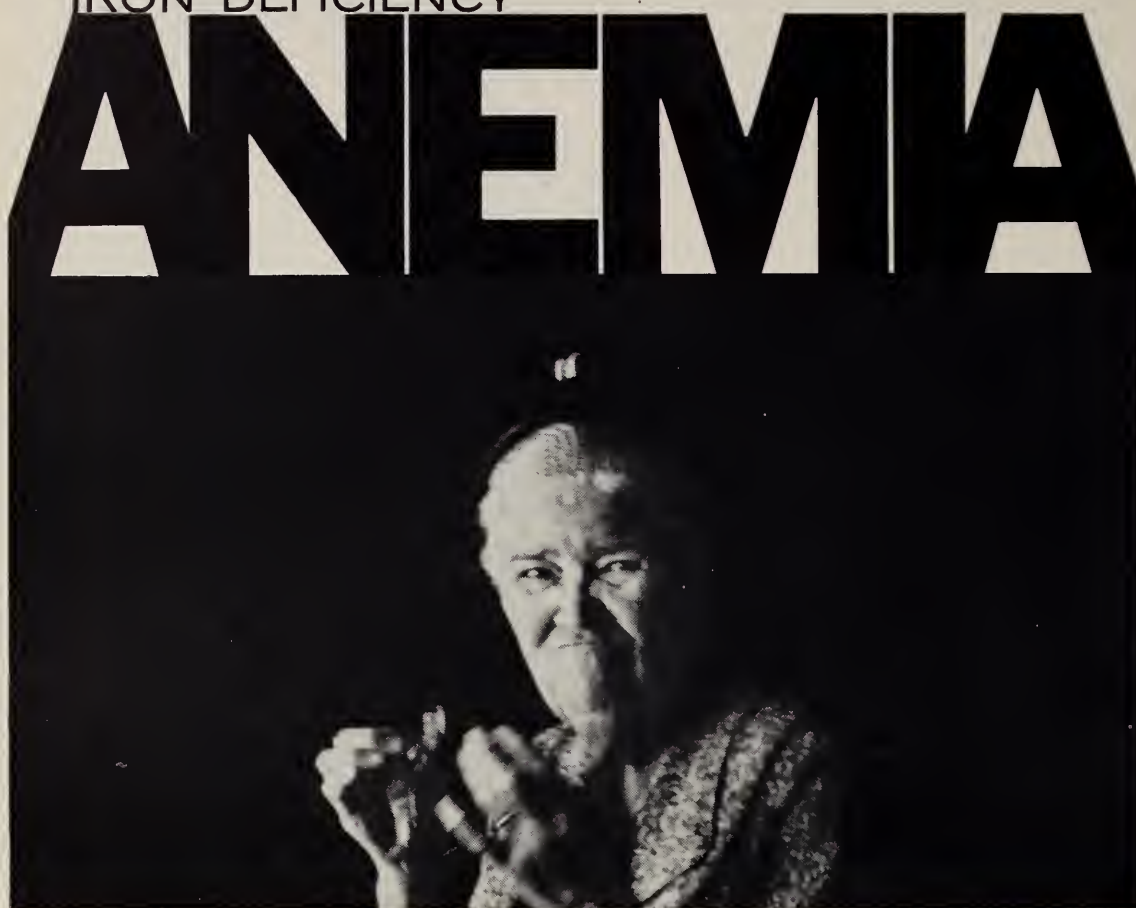
"I am now and always have been in full accord with AMA's long-standing position that those who need help in financing health care should receive it," Dr. Rouse said. "The AMA, however, is opposed to the doling out of tax funds to the wealthy and well-to-do. The expenditure of public funds for those who can well afford to finance their own health care limits the amount of resources available to those who do need it. Such a policy cannot be justified morally or economically."

MEDICAL NEWS IN TENNESSEE

Outline of New Veterans Administration Plan

The Veterans Administration on July 1, 1967, implemented new administrative pro-

IRON DEFICIENCY



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(iron dextran injection)

There's as much iron . . . 250 mg. . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.



IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

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cedures in providing outpatient care by private physicians in Tennessee for veterans' designated service-connected conditions.

Since World War II, the Veterans Administration has authorized some outpatient care by private doctors, at government expense, for veterans' designated service-connected conditions. Authorization of hometown medical care was usually restricted to cases when treatment at a VA medical facility would involve a long trip or other hardship on the veteran. Also, VA estimated how much care each eligible veteran would require during the ensuing year and issued an authorization to a designated doctor to give treatment at government expense.

Under the program effective July 1, 1967, VA will issue an identification card to eligible veterans who require specific treatment, and each patient will be permitted to select a doctor of his choice for treatment at VA expense of the medical condition stated on his card. Tests of this new system—conducted in Indiana, Colorado, and Alabama—with veterans and doctors cooperating have demonstrated that administration is simpler and much paper work is eliminated for the doctor. Also, doctors provided care consistent with sound judgment and ethical medical practice, and there was no evidence that veterans abused the greater freedom of choice and the reduced controls. In fact, there may have been slight decrease in the average number of visits per veteran.

Under the new program, the patient may visit the doctor of his choice as often as his doctor considers necessary for treatment of the stated service-connected condition(s). The doctor, instead of preparing a medical report and a claim form, files an itemized bill on his own letterhead just as he does for his other patients. Medical reports to the VA are filed by the doctor only when there is a significant change in the veteran's service-connected condition.

The identification card issued to selected veterans will indicate the service-connected disability for which treatment is authorized and an expiration date. *Treatment for any other condition must be at the expense of the veteran.* Authorized routine treatment

costs may not exceed a total of \$30.00 per month without prior VA approval. Additional details on the program which might be needed by doctors, veterans and veterans organizations, can be obtained from the Director, the clinic of jurisdiction shown on the identification card or from the Director of any other VA clinic.

TMA Auxiliary

Again in 1967, the Woman's Auxiliary to the Tennessee Medical Association received an award of merit for its outstanding effort in the American Medical Association Education and Research Foundation program. The presentation was made during the 44th Annual Convention of the Woman's Auxiliary to the AMA in Atlantic City, June 18-22. The Tennessee Auxiliary made the greatest contribution of any state group in the 1501-2000-member category—\$24,086.67.

A special achievement award for outstanding efforts in the AMA-ERF program in 1966-67 was presented the Woman's Auxiliary of the Chattanooga-Hamilton County Medical Society. With a membership of 243 members, the Hamilton Auxiliary raised \$7,565.37. Total national contribution was \$384,649.48, part of which will be given to medical schools for unrestricted use. The remainder will go to the student loan guarantee fund.



Mrs. Erle E. Wilkinson of Nashville has been elected constitutional secretary of the AMA Auxiliary. Mrs. Wilkinson has just completed a two-year term as Southern regional vice-president of the Auxiliary and is a past-president of the Auxiliary to the Nashville Academy of Medicine and the Auxiliary to the Tennessee Medical Association.

Tennessee Mid-South Regional Medical Program

A second planning grant in the amount of \$328,458 has been awarded to the Tennessee Mid-South Regional Medical Program which will serve most of Tennessee, part of Kentucky and Alabama. The program is designed to improve the level of diagnosis and treatment of heart disease, cancer, stroke and related diseases. The planning

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involves ways to disseminate rapidly breakthroughs in technology, medicines, and treatment. Under consideration are short-course schooling in new devices and techniques for doctors in the area, providing access to high-grade laboratories, and access to highly trained nurses who could make use of coronary care units.

Pediatric Seminar

Doctors from a 14-state area attended the 1967 Great Smoky Mountain Pediatric Seminar in Gatlinburg, June 17-19. Speakers for the annual event included: Dr. Sydney S. Gellis, professor and chairman of the Department of Pediatrics, Tufts University School of Medicine, Boston; Dr. Amos Christie, professor of pediatrics, Vanderbilt University School of Medicine, and pediatrician-in-chief at Vanderbilt Hospital, Nashville; and Dr. James G. Hughes, professor of pediatrics, University of Tennessee College of Medicine, Memphis, and immediate past president of the American Academy of Pediatrics.

Meharry Medical College

Meharry Medical College awarded 76 degrees at commencement exercises on June 12th. Fifty candidates received the doctor of medicine degree; 19 the doctor of dental surgery degree; 5 received degrees in dental hygiene; and 2 received degrees in medical technology. Dr. Philip R. Lee, assistant secretary for health and scientific affairs in the U. S. Department of Health Education and Welfare, delivered the commencement address.



A \$53,760 grant, under the pathology training program of the U. S. Department of Health, Education and Welfare, has been awarded to the Department of Pathology of Meharry Medical College. The grant, which is a three-year extension of a previously awarded five-year grant under the same program, will be used to give a one-year internship and special research training to prospective pathologists.

University of Tennessee College of Medicine

Two new faculty members and a \$10,000 teaching laboratory to improve the teaching

of radiology have been added to the University of Tennessee Medical Units. Dr. George Cooper, Jr., chairman of the radiology department, named Dr. Raymond L. Tanner as head of radiation physics, and Dr. W. J. Howland as head of the new section of diagnostic radiation.

Vanderbilt University School of Medicine

A 5-year grant of approximately \$2½ million under the Health Sciences Advancement Award program of the National Institutes of Health (USPHS), has been awarded Vanderbilt as one of 5 recipients, out of 128 applicants. The research program to begin July 1st, will be directed toward strengthening three specific areas: cell structure and function, molecular structure, and genetics and cell differentiation. The proposed program, along with related programs, will increase the research and research training capabilities in each of the Medical School's basic science departments.

A new Dean of Biomedical Sciences with an Advisory Committee, composed of the chairmen of the departments involved, will speed the rate of growth and development of such programs: by means of the new visiting scientist program, establishing closer liaison between the basic science departments of the Medical School and the University's departments of Molecular Biology, Chemistry, and Physics; encouraging more interdisciplinary research in the Medical School by creating the best possible climate for the training of future biomedical research scientists; and through other programs which will be designed to strengthen research in bioengineering, drug metabolism, environmental toxicology, computer science, and dental research. Acting Program Director is Leon W. Cunningham, Ph.D., Professor of Biochemistry.

The Health Sciences Advancement Award program, begun this year by the Division of Research Facilities and Resources of NIH., is designed to upgrade biomedical research and research training programs in graduate educational institutions, including schools of the health professions. Criteria for awards call for a clearly defined institutional plan to allow the grantors to move to-

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ward the forefront of those engaged in biomedical research. Grantees receive funds annually for a project period of not more than 5 years. After this, the new levels of scientific achievement are to be maintained by other means.

★

A workshop on biochemical approaches to clinical pharmacology was held on June 12-16th, jointly sponsored by the Drug Research Board of the National Academy of Sciences—National Research Council, the Vanderbilt University School of Medicine, and the Pharmaceutical Manufacturers Association Foundation. Forty participants and 12 observers from 23 states, Canada, Scotland, and England, and the guest faculty of 14 authorities in pharmacology, including two from the Karolinska Institute in Stockholm, Sweden attended the workshop. According to Dr. Oates, directing the program is primarily concerned with disseminating information to clinical pharmacologists and those developing careers in that area, on distribution and disposition of drugs, radioisotopic methods of clinical pharmacology, and biochemical mechanisms of the action of selected drugs.

★

A new division of allied health professions is being created with Dr. Richard O. Cannon, Executive Director of Vanderbilt Hospital, as Dean. The division will administer programs for the training of hospital dietitians, X-ray technicians, laboratory technicians, inhalation therapy technicians, licensed practical nurses, and physical therapists. Programs to train medical records librarians, biomedical engineering technicians, and physicians' assistants are in the planning stage. Dr. Randolph Batson, Director of Medical Affairs, said long-range plans call for construction of a new allied health professions building.

★

Dr. John E. Chapman, of the University of Kansas, has been appointed as Associate Dean for Education at the School of Medicine. He will also hold an appointment as Associate Professor of Pharmacology.

PERSONAL NEWS

Dr. Crawford W. Adams, Nashville, presented the Chairman's address at the Section of Diseases of the Chest on June 19th at the AMA annual meeting. His address was entitled "Persistent Tachycardia, Paroxysmal Hypertension and Seizures in Association with Impaired Glycine Tolerance, Dominantly Inherited Microphthalmia, and Cataracts." Dr. Adams also participated on two panels at the AMA meeting entitled "Catecholamines in Heart Disease," and "Recognition and Treatment of Myocarditis."

Dr. Howard R. Kennedy announces the removal of his office to 1808 Memorial Circle, Clarksville, 37040.

Dr. C. R. Thomas has been elected president of the Chattanooga Area Heart Association. **Dr. Maurice S. Rawlings** was named vice-president, and **Drs. Peter Duvoisin, Donald E. Lowery, George M. Stewart, and R. G. Vieth** were named to the Board. New Executive Committee members include **Drs. Fred B. Ballard, Jr., E. Wayne Gilley, Carl A. Hartung, J. V. Lavecchia, Philip Livingston, David McCallie, Merrill F. Nelson, M. M. Young and Robert Allen.**

Dr. John Platt, Johnson City, spoke on "Post-Operative Care of Patients Following Chest Surgery" at a recent meeting of the Tennessee Licensed Practical Nurses Association, Area 17.

Dr. Hillis F. Evans has been elected president of the 145-member medical staff at Madison Hospital for 1967-68. Other officers who assumed their duties July 1st included **Dr. James E. Burnes**, vice-president, and **Dr. Charles M. Cowden**, secretary treasurer. Others elected were: **Drs. Wendell W. Wilson and Frederec B. Cothren**, delegates at large; **Dr. Joe L. Wilhite**, chief of surgery; **Dr. Harry Witztum**, chief of neuropsychiatry; and **Dr. Herbert T. McCall**, chief of obstetrics and gynecology.

Dr. Ira N. Kelley, Hartsville, has been elected to active membership in the American Academy of General Practice.

Dr. Frank Luton, Nashville, has been elected First Vice President of the American College of Psychiatrists.

Dr. Kellan Walker, a native of Trezevant, joined **Drs. H. P. Clemmer and James O. Fields** in medical practice at Milan Hospital on July 10th.

Dr. Harwell Wilson, chairman of surgery, U. T. Medical Units, **Dr. Louis Britt**, assistant professor in the department, and **Dr. Lionel Naylor**, surgery resident at John Gaston, presented an exhibit at the annual meeting of the American Medical Association in Atlantic City, June 17-22. The exhibit outlined special techniques being developed in the department for study of patients suffering from massive bleeding in the gastro-intestinal tract.

Dr. Roland H. Myers, Memphis, has been ap-

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pointed by the Governor to serve on the newly created Tennessee Higher Education Commission, representing West Tennessee.

Citizens of Medina designated June 11th as "Dr. Morris Day" in honor of **Dr. Robert H. Morris** and his family for their many contributions to the city in the past thirty years.

Dr. Alton Reuther Boyd has opened his office for the practice of general medicine at 107 South Fifth Street in Clarksville.

Dr. Robert L. Nichols, former clinical pathologist at the M. D. Anderson Hospital, Houston, Texas, has been named head pathologist at Memorial Hospital in Chattanooga.

Dr. Joseph W. Johnson, Jr., president of the Chattanooga Psychiatric Clinic for the past twenty years, has resigned the post. Dr. Johnson will be succeeded by **Dr. Moore J. Smith, Jr.**, Chattanooga surgeon and a past president of the Chattanooga-Hamilton County Medical Society.

Dr. Glenn E. Horton, Memphis, has been appointed to the Medical Advisory Board of the American Association for Inhalation Therapy, representing the American College of Allergists. His appointment was recommended by Dr. Lowell Henderson of Mayo Clinic.

Dr. B. J. Smith and **Dr. Edgar D. Akin** have announced the closing of their offices at Lewis County Medical Center. Dr. Akin will return to University of Tennessee Research Hospital in Knoxville, and Dr. Smith will be associated with Goodlark Hospital, Dickson.

Dr. George G. Young, Chattanooga, has been appointed to the Board of Trustees of Erlanger Hospital.

Dr. Sam U. Crawford, Jr., has opened his office for the practice of obstetrics and gynecology in Cookeville.

Dr. Daniel H. Framm, a member of the staff of the Tepper Clinic in Chattanooga for the past eight years, has begun a one-year fellowship at Johns Hopkins Hospital in Baltimore, Maryland. After completing his work at Johns Hopkins, Dr. Framm plans to take three years of training at Georgetown University, Washington, D. C.

Dr. J. L. Armstrong, Somerville, has been appointed vice-chairman of the section on military medicine of the American Medical Association.

Dr. Harold W. Jordan, Nashville, has announced the opening his office at Meharry Medical College for the practice of psychiatry.

Dr. Alexander C. McLeod has joined **Drs. Thomas Guv Pennington** and **Carl E. Mitchell**, Nashville, in the practice of internal medicine.

Medicine of the University of Illinois at the Medical Center, Chicago, will conduct a postgraduate course in Laryngology and Bronchoesophagology from November 6 through 17, 1967. The course is limited to fifteen physicians and will be under the direction of Paul H. Holinger, M.D. It will be held largely at the new Illinois Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, and will include visits to a number of Chicago hospitals. Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants should write to the Department of Otolaryngology, College of Medicine of the University of Illinois at the Medical Center, P. O. Box 6998, Chicago, Illinois, 60680.

Symposium on Acute Leukemia

A symposium on acute leukemia and Burkitt's tumor will be held at the Boston Museum of Science in Boston, on September 20. The symposium, sponsored by the American Cancer Society and the National Cancer Institute, is open to all members of the medical profession and students. There is no advance registration or fee. For further information, write: Dr. Jack W. Milder, Research Department, American Cancer Society, Inc., 219 East 42nd St., New York, N. Y., 10017.

American Academy of Pediatrics

The American Academy of Pediatrics will hold its 36th annual meeting in Washington, D. C., October 21-26. Approximately 4,500 pediatricians, their families and guests are expected to attend. The meeting, scheduled for the Washington Hilton Hotel, will feature symposiums on manpower and graduate training, learning, advances in obstetrics of interest to pediatricians, vaccine progress and problems, and exciting developments in pediatrics. Additional general session papers will cover subjects including the recognition and management of cardiac failure in infancy, care of burns at home, and the child with chronic renal (kidney) disease.

Interested physicians may write the American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois, 60204, for a preliminary program and registration forms. The meeting is open to physicians who are not pediatricians.

Council on Occupational Health

The AMA's 27th annual Congress on Occupational Health will be held September 25-26, in Atlanta. There is no registration fee. A block of rooms has been reserved at the Regency Hyatt House for those attending the Congress. Reservations should be made directly with the hotel indicating that you plan to attend the Congress on Occupational Health. The program is acceptable for 11 Elective hours by the American Academy of General Practice.

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Calendar of Meetings 1967

State		
Sept. 10-12	Tennessee State Pediatric Society, Downtown Holiday Inn, Chattanooga	Oct. 22-23
Oct. 2-3	Tennessee Valley Medical Assembly, Chattanooga	Oct. 25-28
Nov. 1-3	Tennessee Academy of General Practice, 19th Annual Scientific Assembly and Congress of Delegates, Gatlinburg Auditorium, Gatlinburg	Oct. 27-30
Nov. 16	Middle Tennessee Medical Association	Oct. 29
National		Oct. 29-Nov. 1
Sept. 7-9	American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.	Oct. 29-Nov. 3
Sept. 14-16	American Thyroid Association, Michigan Union, Ann Arbor, Michigan	Nov. 5-8
Sept. 18-21	American Academy of General Practice, Dallas, Texas	Nov. 9-11
Sept. 22-30	American Society of Clinical Pathologists, Palmer House, Chicago	Nov. 13-16
Sept. 29-Oct. 3	American Society of Anesthesiologists, Las Vegas, Nevada	Nov. 16-18
Oct. 1-4	Neurosurgical Society of America, The Biltmore, New York	Nov. 25-26
Oct. 2-6	American College of Surgeons (Annual) Conrad Hilton, Chicago	Nov. 26-29
Oct. 5-7	Association of American Physicians and Surgeons, Sheraton-Lincoln, Houston	Dec. 2-7
Oct. 21-26	American Academy of Pediatrics, Washington Hilton Hotel, Washington, D. C.	Dec. 4-6
	American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Fla.	
	Congress of Neurological Surgeons, San Francisco Hilton Hotel, San Francisco	
	Association of American Medical Colleges, New York Hilton, New York	
	American Association of Ophthalmology, Palmer House, Chicago.	
	American College of Gastroenterology, Biltmore Hotel, Los Angeles	
	American Academy of Ophthalmology & Otolaryngology, Palmer House, Chicago	
	American Society of Plastic and Reconstructive Surgeons, Waldorf-Astoria, New York	
	Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas	
	Southern Medical Association, Miami Beach, Florida	
	Western Surgical Association, Ambassador Hotel, Los Angeles	
	American College of Chest Physicians (Interim Clinical Meeting) Houston, Texas	
	American Medical Association (Clinical Convention) Houston	
	American Academy of Dermatology, Palmer House, Chicago	
	Southern Surgical Association, The Homestead, Hot Springs, Va.	

T M A

THE VIEWING BOX

Comparison of Two Federal Programs:
PL 89-749, Comprehensive Health Planning,
PL 89-239, Heart, Cancer, Stroke*

(Editor's Note: The analysis and comparison of these two programs to the dependence and the interdependence of each has been prepared by the U. S. Department of Health, Education and Welfare. It is to be emphasized that MSMS is not responsible for the analysis and does not accept or reject in part or in toto the analysis as printed herein.)

Congress has become increasingly aware of the fact that improved health care for the American people demands more complete cooperation between the Federal government, the universities, State and local government, State and local medical societies, the voluntary health interests, and individuals and organizations interested in creative action for health. Evidence of this awareness can be found in the complementary relationships between the Heart Disease, Cancer and Stroke Amendments of 1965 (Public Law 89-239) and the Comprehensive Health Planning and Public Health Service Amendments of 1966 (Public Law 89-749).

P.L. 89-239 authorizes grants to assist in planning, establishing, and operating regional medical programs to provide the health community with the latest information on the care of patients with heart disease, cancer, stroke and related diseases.

P.L. 89-749 establishes grants for comprehensive areawide and state-wide health planning, training of planners, and evaluation and development efforts to improve the planning art. As envisioned by Congress, the comprehensive planning efforts outlined in P.L. 89-749 would complement and build on the specialized planning of the regional medical programs provided for in P.L. 89-239. The following outline, as viewed by the U. S. Department of HEW, illustrates the interrelationship of programs and resources established by these two important programs.

*From *Michigan Medicine*, July, 1967.

P.L. 89-749

**THE COMPREHENSIVE HEALTH PLANNING
PROGRAM
(PROGRAM SCOPE)**

To establish a planning process to achieve Comprehensive Health Planning on a state-wide basis which identifies health problems within the state, sets health objectives directed toward improving the availability of health services, identifies existing resources and resource needs, relates the activities of other planning and health programs to the meeting of these health objectives, and provides assistance to state and local officials, to private voluntary health organizations and institutions, and to other programs supported by PHS grant funds in achieving the most effective allocation of resources in accomplishing these objectives.

(PROGRAM PARTICIPANTS)

State agency designated by the Governor does the planning. State advisory council advises on the planning process. Membership must include more than half consumer representation. Membership will also include voluntary groups, practitioners, public agencies, general planning agencies, and universities.

(PROGRAM PROCESS)

1. Establish state and areawide health goals.
2. Define total health needs of all people and communities within area served for meeting health goals.
3. Inventory and identify relationships among varied local, state, national, governmental and voluntary programs; regional medical programs, mental health, health facilities, manpower, Medicare—so that these programs can be assisted in making more effective impact with their resources.
4. Provide information, analyses, and recommendations which can serve as the basis for the Governor, other health programs and communities to make more effective allocations of resources in meeting health goals.
5. Provide a focus for interrelating health planning with planning for education, welfare and community development.
6. Strengthen planning, evaluation, and service capacities of all participants in the health endeavor.
7. Provide support for the initiation and integration of development and pilot projects for better delivery of health services; develop plans for targeting flexible formula and project grants at problems and gaps identified by the planning process.

P.L. 89-239

**THE REGIONAL MEDICAL PROGRAM
(PROGRAM SCOPE)**

To identify regional needs and resources relating to heart disease, cancer, stroke, and related diseases and to develop a regional medical program which utilizes regional cooperation to apply and strengthen resources to make more widely available the latest advances in diagnosis and treatment of these diseases.

(PROGRAM PARTICIPANTS)

University medical centers, hospitals, practicing physicians, other health professions, voluntary and public health agencies, and members of the consumer public. A regional advisory group rep-

resenting these interests and playing an active role in the development of the regional program must approve any application for operation activities of the regional program.

(PROGRAM SCOPE)

1. Establish cooperative arrangements among science, education, and service resources.
2. Assess needs and resources.
3. Develop pilot and demonstration projects, emphasizing flow of knowledge in uplifting the cooperative capabilities for diagnosis and care of patients.
4. Relate research, training, and service activities.
5. Develop effective continuing education programs in relation to other operational activities.
6. Develop mechanisms for evaluating effectiveness of efforts in the provision of improved services to patients with heart disease, cancer, stroke and related diseases.

The relationships outlined above provide the key to a federally-planned integration of the many specialized health programs supported by the Public Health Service and the states.

In addition to Regional Medical Programs (P.L. 89-239), ongoing activities such as community mental health centers, areawide health facility planning, and Hill-Burton programs are stimulating the creation of new relationships between health resources and functions. Each of these programs require participation not only by a broad range of health professionals but also by the consumers of health services. Each of these programs is dependent upon the interaction of the full range of relevant health interests, including those in the public sector and the private voluntary sector in achieving the particular program goals.

Comprehensive health planning (P.L. 89-749) is designed to provide assistance in the development of more effective relationships among such health programs and to provide a better basis for relating these pro-

grams to the accomplishment of overall health objectives at the state and local level. As an example, the comprehensive health planning activities will use data obtained by the Regional Medical Programs (P.L. 89-239) not only to facilitate state and areawide planning, but also to assist other programs in meeting their objectives without duplication of effort.

The planning resources created at the state and local level under Public Law 89-749 will be of real value in meeting the objectives of Public Law 89-239, and other programs of the Public Health Service and the States. The plans, programs and organizational framework being created under the Regional Medical Programs also should help the areawide and State-wide councils created under P.L. 89-749.

Other programs supported by Public Health Service funds such as mental health, migrant health, and air pollution can have the same kind of productive interrelationship with the comprehensive health planning programs.

To insure a more meaningful cooperation for health planning, there will need to be an increase in the supply of competent health professionals and planners.

Public Law 89-749 does authorize grants to public or nonprofit organizations for "training, studies, and demonstrations," in order to advance the state of the health planning art.

For the first years, emphasis will be placed on increasing health planning manpower. (Until now, Public Health Service effort has been limited to ad hoc short courses or inservice training.)



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Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as, —Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

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Much of the misunderstanding and suspicion of the Regional Medical Programs stems from the Report of the ((DeBakey) Commission on Heart Disease, Cancer and Stroke which recommended "a national network—of centers for clinical investigation, teaching, and patient care, in universities, hospitals, and research institutes and other institutions across the country." This and two additional recommendations in a similar vein formed the basis of twin bills (House and Senate) put into the hopper in January 1965. Certain organizations and agencies reacted quickly to testify before Congressional committees:—the American Medical Association, the American Heart Association, the Association of American Medical Colleges, and the National Institutes of Health. As a result H.R.-3140, amended and as reported out in September 1965, had been almost completely re-written with deletion of the *center* concept and its replacement by the concepts described below. Thus, this law does *not* recognize certain of the major and basic recommendations of the DeBakey Report!

Regional Medical Programs

STANLEY W. OLSON, M.D.,* Nashville, Tenn.

Introduction

The Congress of the United States on October 6, 1965 amended the Public Health Service Act to step up the attack against heart disease, cancer, stroke and related diseases by assisting public or nonprofit private universities, medical schools, research institutions and other public or non-profit private institutions and agencies to establish Regional Medical Programs of research, training and demonstration activities. In August 1966, the Tennessee Mid-South Regional Medical Program was awarded a planning grant for this purpose in the amount of \$260,841. From time to time the members of the medical profession have raised questions about the purposes and implementation of the program. This article attempts to answer the questions in a general or broad fashion. In a following issue of the *Journal* the Tennessee Mid-South Regional Medical Program will be described in more detail.

What is a Regional Medical Program?

A Regional Medical Program as described in the Act is "a cooperative arrangement among medical schools, research institutions and hospitals for research and training (including continuing education) and for related demonstrations of patient care in

the fields of heart disease, cancer, stroke and related diseases."¹ It goes on to say that these cooperative arrangements are intended to "afford to the medical profession and the medical institutions of the nation, through such cooperative arrangements, the opportunity of making available to their patients the latest advances in the diagnosis and treatment of these diseases and by these means to improve generally the health manpower and facilities available to the nation."

Physicians will be particularly interested to note that the Congress specifically indicated that these purposes would be accomplished "without interfering with the patterns or the methods of financing of patient care or professional practice, or with the administration of hospitals" and further indicated that the programs would be carried out "in cooperation with practicing physicians, medical center officials, hospital administrators and representatives from appropriate voluntary health agencies."

How are Regional Medical Programs established?

In the hearings held by Congressional committees before passage of the law, it was recognized that patterns of patient referral and of education often do not follow state lines. No attempt was made, therefore, to define the regions along state lines. Instead, leaders in the health field were en-

* Dr. Olson, formerly Dean of Baylor University College of Medicine, Houston, became the Director of the Mid-South program in January, 1967.

couraged to explore existing resources within their own areas for the purpose of coordinating and strengthening those resources through the formation of a Regional Medical Program.

When substantial agreement is reached at the local level about how the program should be organized, an application may be submitted to the Division of Regional Medical Programs of the National Institutes of Health for a planning grant. These funds are intended to provide a full time staff who can carry through in a systematic and organized fashion the initial efforts made by the several organizations which participated in sponsoring the planning grant.

How many Regional Medical Programs have been established throughout the United States?

At the present time 50 applications have been received by the National Institutes of Health and 2 more are being developed. Of these, 48 have been awarded planning grants and 4 have been awarded operational grants. The regions vary in size from the California region with almost 20 million people to the Northern New England region which has about one-half million people. Some of the regions involve a small geographic area,—e.g., the New York Metropolitan Region. Other regions involve a large area,—e.g., the Mountain States Region sponsored by the Western Interstate Commission for Higher Education which includes the states of Wyoming, Montana, Idaho and Nevada.

The 4 regions that have already been awarded funds for "operations", as distinguished from "planning", include the Missouri, Kansas, Albany and the Intermountain (Utah) Regions. These latter grants are for the support of specific projects designed to assist in combating heart disease, cancer, stroke and related diseases.

Why was Tennessee divided into two regions?

During the initial preplanning exploration, which was done largely under the leadership of Dean Batson, it became clear that the leaders in medicine and in medical education in the western part of the State envisioned a program which would include not only that section of Tennessee but northern Mississippi, eastern Arkansas and

southwestern Kentucky. That program, called the Memphis Regional Medical Program, has now been established. It also became evident that Alabama, Georgia and North Carolina were planning to develop Regional Medical Programs which would be organized along state lines. Initial information from Kentucky suggested that a region would be formed involving the Ohio Valley area. This left largely unclaimed a portion of southern Kentucky which traditionally has had an established medical referral pattern to the Nashville area. Thus it seemed clear that the Tennessee Mid-South Region should include both middle and eastern Tennessee and southern Kentucky. Although initial discussions also considered the possibility of including some of the counties in northern Alabama, the Alabama Regional Medical Program was formed under the leadership of the Alabama Medical Society and that group expressed a desire to include all of its constituent county medical societies within its region.

Are other states divided into more than one region?

The latest directory of established Regional Medical Programs indicates that 23 are organized along state lines. The remaining programs are organized in such a fashion that they include only part of a state or include areas within two or more states. Considerable overlapping of "spheres of influence" exist and no effort is made to establish rigid boundaries.

Where is the medical center to be built?

This is a "trick" question inserted to emphasize that the new program is *not* a regional medical center program. The intent of Regional Medical Programs is to assist physicians bring improved care to their patients in their *own* community, rather than to centralize facilities for the care of patients with heart disease, cancer or stroke. The Congress made specific reference to this situation by deleting from the Bill all authorization for new construction. By this means, it clarified its intent that Regional Medical Programs should be organized as programs for improving care of patients through cooperative arrangements rather than serve as a means of constructing a

"bricks and mortar" regional medical center.

Is there a national strategy or concept of how Regional Medical Programs should be developed?

Because of the wide differences in local customs, culture and practices within our nation, the Congress did not prescribe, nor has the Division of Regional Medical Programs attempted to define, how regions should implement the intent of the Regional Medical Programs legislation. Dr. Robert Marston, Director of the Division of Regional Medical Programs, has commented on this matter in his paper, "A Nation Starts a Program."² "A clearly defined national medical program would have led to fewer questions. However, even if workable, it would have meant less opportunity for creativity, fewer opportunities to develop diverse answers appropriate to diverse problems, and less assumption of responsibility at the local level."

As the various regions begin to grapple with their own local problems, certain common approaches are beginning to emerge. Clearly, continuing education is a supporting pillar for almost all programs. Another is the concept of research in medical care in which research institutions, practicing physicians and community hospitals will cooperate to identify more effective ways of making diagnoses and treating patients with heart disease, cancer, stroke and related diseases. In order to carry out successfully these two major undertakings, each Regional Medical Program must become proficient in operations research to evaluate the effectiveness of specific projects. Unless we acquire such capability, we may very well become engaged in a huge medical boondoggle that will consume personnel time and funds without advancing our capability for improved patient care.

What is the relationship of Regional Medical Programs to the new Comprehensive Statewide Health Planning Program?

The State Health Department has been designated as the official agency for this program in Tennessee. That organization is already well equipped to carry out the many planning functions that involve environmental aspects of health; that involve

institutions such as hospitals, extended care facilities and nursing homes; and that involve governmental organizations such as County Health Departments. In addition the statistical division under the direction of Miss Ann Dillon is a well organized activity which we could not hope to duplicate in the Regional Medical Program except at great expense. We plan, therefore, to cooperate as closely as possible with this new activity and will benefit tremendously from the informational studies which will be carried on by that group.

On the other hand the focus of the Regional Medical Program will be centered on the relationship between the medical centers (especially the educational institutions within those medical centers) and the practicing physicians. One may speak of the Regional Medical Program as an axis linking education and patient care. The focus of the Comprehensive Statewide Health Planning Program will be on environmental health and long range planning for the institutions necessary to provide total health care.

What is the attitude of the American Medical Association toward Regional Medical Programs?

Dr. Charles L. Hudson, then President of the American Medical Association, spoke at the Conference on Regional Medical Programs, held in Washington on January 15, 1967. The following is an excerpt from his speech on that occasion:³ "It is the AMA's interpretation of Public Law 89-239 and its regulations that services will be given incident only to the needs of education and research, that the program rather than a geographic entity is a sphere of influence largely educational in intent and capable of exchanging information and personnel between the center and the peripheral institutions which are now called hospitals."

In continuing to quote, "With this understanding—rather than with any definitive interpretation by the National Institutes of Health, I must honestly add—I recommended the program to the constituent and component parts of the AMA in counties and states and they have responded not only as members of local advisory groups but also by leading in the application for approval of programs."

"Our search for another mechanism in this country for post-graduate medical education and the adaptability of Public Law 89-239 as an excellent model for such a purpose, have led me to give public support to use of this legislation for educational purposes. I feel that the impact of Public Law 89-239, if used in this way on the health care of the nation, will be infinitely greater than if implemented primarily in another fashion. The dissemination of the program's in-

fluence through the physician, especially those at the periphery, will be broader than if the substance is used up on services to a limited number of individuals."

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* * *

TRANSVENOUS ATRIAL PACING IN THE TREATMENT OF REFRACTORY VENTRICULAR IRRITABILITY

John A. Kastor, Roman W. DeSanctis, J. Warren Harthorne, and Gabriel H. Schwartz: *Ann. Int. Med.* 66:939, (May), 1967.

Among the most challenging and potentially fatal problems in medicine is that of repetitive ventricular tachycardia and ventricular fibrillation that cannot be suppressed with the usual antiarrhythmic drugs. When this occurs with complete AV block it can usually be eliminated by pacing the ventricles at a rate that prevents ventricular ectopic activity from emerging.

Recently, reports have shown successful use of rapid intracardiac pacing by means of electrodes positioned in either the right atrium or right ventricle to manage refractory ventricular tachyarrhythmias, even in the presence of normal AV conduction. These authors report the use of transvenous atrial pacing in 2 such patients in the absence of AV block.

The first patient was a 67 year old woman with progressive heart failure, mitral insufficiency and left ventricular hypertrophy that collapsed with ventricular fibrillation during therapy of the congestive heart failure. In spite of myocardial depressants and repeated external shocks, the ventricular arrhythmias persisted until a transvenous pacer was inserted into the right atrium under EKG. control. With a pacer rate of 110 the atria and ventricles were immediately captured and the arrhythmias ceased. After two days, sinus rhythm was stable and pacing discontinued only to have the same problem

occur 23 days later. Again only transvenous atrial pacing at a rate of 110 could control the irritable myocardium. Three days later a permanent transvenous atrial pacer was inserted and the arrhythmias controlled at a rate of 90. The patient left the hospital on the 97th day.

The second patient was a 48 year old woman who developed intractable ventricular arrhythmias following a grand mal seizure and again could only be controlled with a transvenous atrial pacer at a rate of 100. After 48 hours she was in sinus rhythm and showed no evidence of a myocardial infarction.

The authors make reference to previous similar cases in the literature where refractory ventricular tachyarrhythmias have been controlled by pacing the right ventricle at rates as high as 155 beats per minute for varying periods of time. Though the position of the atrial electrode has been found by some to be more difficult to maintain than the ventricular one, it seems reasonable to attempt atrial pacing in the absence of an AV block where possible to preserve the atrial effect on ventricular filling.

It would seem that when ventricular tachyarrhythmias from any cause are unresponsive to the usual drug therapy, artificial pacemaker "capture" of the heart is a worthwhile procedure. EKG, or fluoroscopic positioning of the electrode can be used and grounding hazards should be understood. The authors feel that their 2 patients would have not survived without this modality.

(Abstracted: For the *Middle Tennessee Heart Association* by William C. Alford, Jr., M.D., Nashville.)

Radioimmunoassays for determining the level of serum insulin is generally of little aid in the management of diabetes mellitus. However, it offers great help in evaluating hypoglycemic states.

The Use of Insulin Assays in Clinical Medicine*

OSCAR B. CROFFORD,† Nashville, Tenn.

Since the discovery of insulin, physicians have been attempting to determine its concentration in human serum and to correlate serum insulin concentrations with recognized disorders of carbohydrate and fat metabolism. With the development of radioimmunoassay technics, measurements of serum insulin concentrations are now available in numerous research laboratories.¹ This report is intended to acquaint practicing physicians with some of the clinical situations in which a knowledge of the serum insulin concentration has proven useful.

The radioimmunoassay of insulin is based on simple principles. It requires a pure antigen, insulin, to which a specific antibody can be produced by repeated injection into guinea pigs. For the assay, an insulin solution of known concentration (or the serum specimen whose insulin concentration is to be determined) is allowed to combine with insulin antibodies. In the second stage of the assay, insulin labeled with iodine-125 is allowed to combine with the antibody which remained uncombined at the end of the first stage. Next, all of the insulin-antibody complexes are precipitated and the quantity of insulin-I¹²⁵ remaining in the supernatant is determined by counting the radioactive disintegrations. It is apparent that the amount of radioactivity measured, which represents insulin-I¹²⁵ not bound to antibody, is proportional to the concentration of insulin in the standard solution (or in the unknown). For example, if the insulin concentration in the standard

solution is high, the amount of antibody which is uncombined at the end of the first stage will be low, the amount of radioactive insulin which combines with the "left-over" antibody during the second stage will be low and the amount of insulin-I¹²⁵ remaining in solution after removal of the insulin-antibody complexes will be correspondingly high. Thus, by using insulin solutions of varying concentration, a standard curve can be constructed which relates counts per minute in the supernatant to insulin concentration. When a serum specimen whose insulin concentration is to be determined is processed similarly, the counts per minute in the supernatant are measured, and the insulin concentration obtained from the standard curve.

Although simple in principal, radioimmunoassays are not procedures which can be performed on an occasional basis and produce reliable results since an exact balance between insulin concentration, antibody concentration and insulin-I¹²⁵ concentration is critical. However, once the procedure is set up, large numbers of serum samples can be processed. Insulin in human serum is quite stable when frozen and 1 ml. of serum is more than sufficient for the assay. Therefore, it is quite practical for frozen serum samples to be mailed to a central laboratory for insulin assay.

In this laboratory, the 8 A.M. serum insulin concentration, as measured in normal adults following an overnight fast, is 10 ± 4 μ units per ml. (mean \pm standard deviation). This value is quite reproducible when measured in the same individual on sequential days. In patients with maturity onset diabetes, who have normal fasting blood sugars but abnormal glucose tolerance tests, the serum insulin concentration measured under the same conditions is $15 + 5$ μ units per ml. Evidence of this type pro-

* Adapted from a paper read at the Nineteenth Annual meeting of the Tennessee Diabetes Association, April 15, 1967.

† From the Departments of Medicine and Physiology, Vanderbilt University, Nashville, Tenn.

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Dr. Crofford is investigator for the Howard Hughes Medical Institute.

vides strong support for the current view that most patients with maturity onset diabetes are not analogous to a depancreatized patient (whose serum insulin concentration is zero), but probably have some type of resistance to the action of insulin and/or an inadequate pancreatic response to hyperglycemia.²

Additional information can be derived from measuring the serum insulin concentration during a glucose tolerance test. In the normal individual, there is a prompt rise in serum insulin following the ingestion of glucose, with the highest serum insulin concentration occurring at about the same time as the highest serum glucose concentration. (Fig. 1) In a patient with matur-

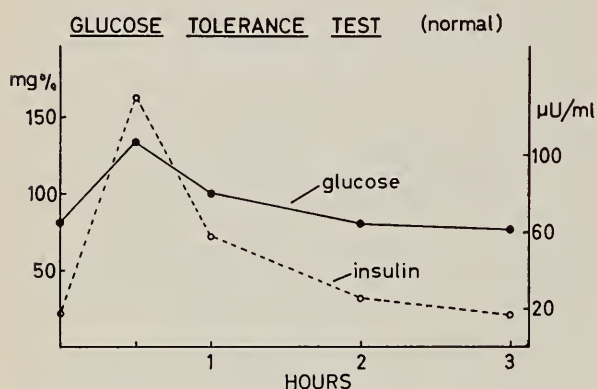


Fig. 1. The insulin response during a 3 hour oral glucose tolerance test in a normal adult.

ity onset diabetes, there is a characteristic delay in the release of insulin so that the maximum value is seen after the maximum serum glucose concentration has been reached. (Fig. 2) Although this observa-

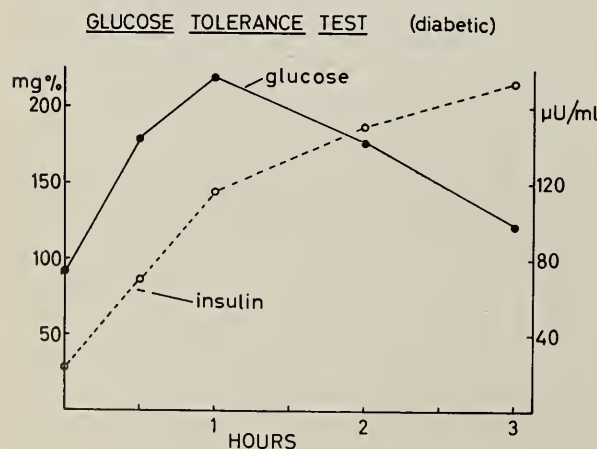


Fig. 2. The insulin response during a 3 hour oral glucose tolerance test in a patient with maturity onset diabetes.

tion is conceptually useful in understanding the nature of maturity onset diabetes, it is certainly not recommended that serum insulin assays replace the oral glucose tolerance test as a diagnostic test for diabetes.

There are occasional instances where the serum insulin assay is informative about the type of diabetes with which one is dealing. At Vanderbilt University Hospital we have recently seen a patient with extensive radiation to the pancreas who had steatorrhea and mild diabetes. Was the diabetes related to pancreatic fibrosis and scarring, or did he have the usual form of maturity onset diabetes which might be expected to respond to sulfonylurea therapy? Serum insulin assays were performed which indicated that his fasting serum insulin concentration was 2 μ units per ml. and rose only slightly in response to glucose. Therefore, the former diagnosis was considered more likely. Another patient with gigantism and acromegaly had a fasting serum insulin concentration of 66 μ units per ml. which rose to 248 μ units per ml. following glucose. He was suspected of having a persistently high level of growth hormone which was antagonizing the action of insulin. This suspicion was confirmed by growth hormone assays. Nevertheless, such cases are seen infrequently, and the serum insulin assay finds its greatest clinical usefulness in evaluation of the hypoglycemic states.

It should be emphasized at this point that all of the preceding comments refer to the maturity onset type of diabetes. This is due in part to the sparsity of data in youth onset diabetics who have not been previously treated with insulin. Patients treated with insulin will develop insulin antibodies. These are *rarely* present at a titer high enough to be clinically important but frequently prohibit the use of an insulin assay which is based on immunologic principles. Consequently, it would be of considerable interest to measure serum insulin concentrations in children prior to the institution of insulin therapy.

Symptomatic hypoglycemia is seen frequently. The numerous conditions which can produce hypoglycemia have been reviewed elsewhere so this discussion will deal only with the most frequently encountered types.³ During the past two years,

our laboratory has been asked to evaluate approximately 120 cases of symptomatic hypoglycemia by means of insulin measurements made on serum obtained in the fasting state, during an oral (and sometimes intravenous) glucose tolerance test, and during an intravenous tolbutamide test. The most frequently encountered type of hypoglycemia, which is usually referred to as post-hyperglycemic hypoglycemia, is usually seen in young, healthy individuals and occurs about 2 hours following a high carbohydrate meal. It does not occur in the fasting state and rarely, if ever, leads to unconsciousness unless the patient also has a convulsive disorder. The fasting blood sugar and serum insulin concentrations are normal. The glucose tolerance test shows a prompt rise of both glucose and insulin, followed by an equally prompt fall. The lowest blood sugar concentration (40 to 50 mg.%) usually occurs about 2 hours following administration of the glucose. The symptoms are promptly relieved by oral glucose and will usually subside spontaneously in about 30 minutes. The tolbutamide test is normal. (Fig. 3) Virtually all

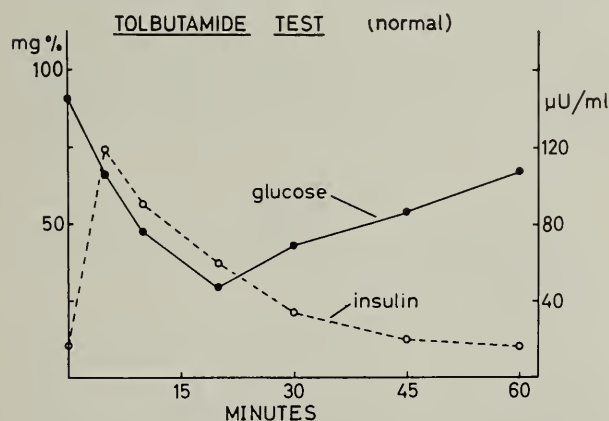


FIG. 3. The insulin response to an intravenous injection of 1 Gm. of sodium tolbutamide in a patient with post-hyperglycemic hypoglycemia. The result is considered typical of a normal tolbutamide test.

of these patients can be managed successfully by between meal feedings which are high in protein and low in carbohydrate.

The second most common type of hypoglycemia which we have encountered is that seen in association with mild, maturity onset diabetes. As in the previous type, hyperglycemic symptoms are usually mild and

occur following meals rather than upon fasting. The glucose tolerance test is characterized by a delayed, but high rise in serum insulin, a 2 hour post-glucose blood sugar of 120 mg.%, or greater and symptomatic hypoglycemia usually seen at about the fourth hour. Again, most of these patients can be managed with a diabetic diet since this usually includes mid-afternoon and bedtime feedings. If the symptoms are not relieved by dietary therapy, a trial of sulfonylurea therapy is indicated. The rationale of this approach is that if the drug can cause insulin to be released from the B-cells more promptly, the serum insulin concentration will not reach such high levels and the subsequent hypoglycemia can be prevented.

Patients with functioning B-cell tumors characteristically have symptomatic hypoglycemia in the fasting state. The symptoms may be those of bizarre behavior, convulsions or unconsciousness and, again, are relieved by food. Prior to the use of the insulin assay, the diagnostic tests which were of greatest value were: a 72 hour fast, which will result in hypoglycemia in virtually all patients with an insulinoma and not in the patients with the types of hypoglycemia discussed previously; and, a tolbutamide test, which will be positive in many (certainly not all) patients with an insulinoma. In contrast to a normal tolbutamide test, the blood glucose concentration during a tolbutamide test in a patient with an insulinoma remains low for two, three or even more hours. (Fig. 3) The difficulty in the interpretation of these tests is that if only the blood sugar is measured, positive tolbutamide tests and 72 hour fasts will be seen in patients who do not have an insulinoma. Thus, patients with Addison's disease, pituitary insufficiency, glycogen storage disease, severe liver disease, fibromas, fibrosarcomas and other large tumors which are not of B-cell origin, idiopathic hypoglycemia of childhood and other diseases can have fasting hypoglycemia and tolbutamide tests which, from the standpoint of the blood sugar alone, cannot be distinguished from the results of the same tests performed in a patient with an insulinoma. However, the diagnostic problem can be solved if the serum insulin concentration and the blood

sugar are *both* measured during a glucose tolerance test, a tolbutamide test and, most important, during a prolonged fast.

The principles used in evaluating the functional status of the pancreatic B-cells are the same as those used in evaluating the functional status of other endocrine glands. Thus, with a normal gland, the magnitude of the hormonal response is proportional to the intensity of the stimulus, while with an autonomously functioning tumor, the amount of hormone released may be totally unrelated to the stimulus. In the case of B-cell adenomas, the characteristic finding is that of a *fixed* serum insulin concentration which usually does not rise during a glucose tolerance test and results in a mildly diabetic type of blood sugar curve, which either over responds to tolbutamide or fails to respond at all, and which does not suppress to near zero levels when the patient develops hypoglycemia during a prolonged fast. (Fig. 4) Thus, by measuring

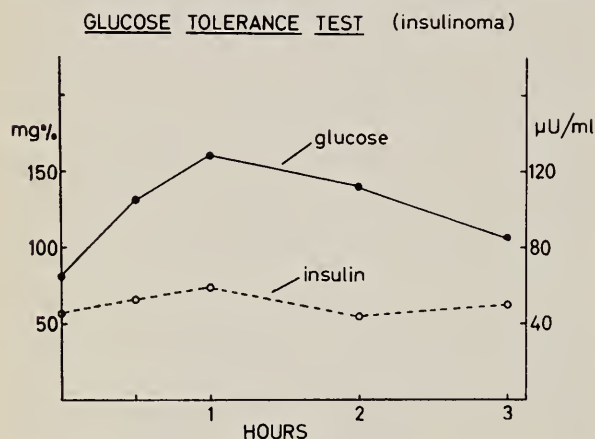


FIG. 4. The insulin response to a 3 hour oral glucose tolerance in a patient with a functioning B-cell adenoma.

the serum insulin concentration, we can now distinguish between those types of hypoglycemia due to hyperinsulinism (i.e. in-

sulin producing tumors) and hypoglycemia due to a failure of some of the homeostatic mechanisms which are needed to maintain a normal blood glucose concentration. In these latter conditions, the serum insulin concentration will be near zero during hypoglycemia since the stimulus for the B-cells to secrete insulin (i.e. hyperglycemia) is absent.

Summary and Conclusions

The principles of the radioimmunoassay for insulin were described and values given for the serum insulin concentrations measured in normal adults and in patients with maturity onset diabetes. Although knowledge of the serum insulin concentration in diabetics is occasionally helpful, serum insulin measurements are not recommended as a means of diagnosing or guiding the management of diabetics. In evaluating the hypoglycemic states, however, the insulin assay has proven so useful that, at the present time, it is difficult to recommend exploration of the pancreas in search of a B-cell tumor on any patient without first having demonstrated chemical hyperinsulinism.

Acknowledgements. The author gratefully acknowledges the skillful technical assistance of Mrs. Carol Thompson and Miss Alonia Holloway, and the referral of interesting patients by many members of the Vanderbilt University Hospital Staff.

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Consideration of The Paranoid Problem in Psychiatric Practice*

KENNETH J. MUNDEN, M.D.,† Memphis, Tenn.

*"When you shall these unlucky deeds relate,
Speak of me as I am; nothing extenuate,
Nor set down aught in malice."*

I would like to share with you today some thoughts about the paranoid condition and offer you some suggestions of a practical nature. As you know, the paranoid problem is the most common and most difficult one encountered in psychiatric practice, with treatment results that are most disappointing and involving a patient who stands out for his particularly obnoxious and unattractive personality.¹

By paranoid reaction I mean any of the psychiatric conditions where an excessive use of the mechanism of projection exists; I also recognize at this point that it may seem difficult to determine the degree of excessive use of projection and the extent of impairment of reality contact.² For a purely descriptive definition, the American Psy-

chiatric Association diagnostic manual emphasizes the presence of delusions or false beliefs, usually grandiose or persecutory in nature with affect and behavior consistent with the beliefs held and intelligence preserved. Thus the main single factor that is emphasized is the existence of a belief or beliefs held to be false by the examiner or evaluator.

My interest in the paranoid condition³ was aroused some years ago by 2 patients to whom I shall refer briefly:

(1) *The first case* is that of a divorced woman in her late thirties whose marriage in her early twenties lasted but a few months. A daughter was born and subsequently the patient, her daughter, and the maternal grandmother have lived together continuously.

In her late twenties the patient suffered the first of a number of acute schizophrenic episodes requiring hospitalization. With each recovery she was able to return home and obtain employment, supporting not only herself, but also her mother and daughter.

In the course of time she became well-known in various community agencies, including the courts. When acutely disturbed, her behavior in public places would force her institutionalization. At the time I first saw her on an outpatient basis, she had been referred and rereferred from one agency to another, no doubt because she had become a well-known patient and no one was willing to carry her any longer. The patient was extremely hostile and frightened, grossly delusional, and experienced auditory hallucinations. Therapy was instituted primarily to try and help her accept medication and make proper use of it. After 6 months she finally consented and gradually became well-organized and able to function reasonably well. Concurrently the delusional process became encapsulated and clearly verbalized; in essence it contained two themes; the first, rejection by a cruel, hostile world, and second, a bitter attack on human beings for their dirtiness and evil intentions toward her.

During one session she suddenly confronted me with my own feelings of hostility and anger toward her. After some hesitation I fully acknowledged these feelings. She requested an explanation and I gave it by pointing out her unpleasant attitudes, vicious opinions, unwarranted

* Read at the meeting of the Tennessee District Branch—American Psychiatric Association, April 14, 1967, Memphis, Tenn.

† From the Tennessee Psychiatric Institute, and the Department of Psychiatry, University of Tennessee College of Medicine, Memphis, Tenn.

¹So disappointing, in fact, that, "Although many paranoid states may be partially alleviated by the use of phenothiazines or antidepressant somatic therapy, few psychotherapeutic advances have been evidenced in recent years. The scarcity of reports in the literature leads one to believe that the results of treatment of hospitalized paranoid patients remain poor." (Quoted from William H. Wainwright, *Treatment of Paranoid Disorders* by Dual Therapists, page 109. *Current Psychiatric Therapies* Vol. VI, 1966, Editor Jules H. Masserman, Grune and Stratton, New York)

²The reader is referred to Norman Cameron's excellent summary review of the subject: *Paranoid Conditions and Paranoia*, Chapter 25 of the first Volume of the American Handbook of Psychiatry. Silvano Arieti, Editor Basic Books, Inc., New York, 1959.

³Kenneth J. Munden, M.D., *Therapeutic Effects of Confrontation of the Paranoid Individual with some of his Personality Traits*. Presented in summary form at the Fourth World Congress of Psychiatry, Madrid, Spain, 1966. Accepted for publication in the *Journal Psychotherapy: Theory Research and Practice*.

attacks, and her lack of trust and faith even in a person who was trying to help her. The reaction was unexpected:—she became quiet, calm, and tearful, with a confession that she was a “bad girl” and would now try and be good.

(2) *The second case* is that of a widow in her middle fifties who had a long-standing history of paranoid behavior, never severe enough to require hospitalization, but giving her a bad-nuisance reputation in the community. Through the years help had been proffered without success a number of times. She had also been involved in courts on several occasions until she was refused further admittance or litigation.

I first saw this woman on a referral from a colleague who stated he could no longer put up with her. Like the first patient, she was hostile, stubborn, demanding and argumentative, refusing medication, although subsequently she began to take some irregularly.

During one of the sessions she was explaining she could not understand why no one would listen to or accept her beliefs, claiming that her minister had accepted them and encouraged her to take court action. When this statement about the minister was challenged, she admitted that she had lied about him, feeling that the lie was justified to support her delusional beliefs.

These two incidents lingered on in the back of my mind for a long time. I kept asking myself, why did the first patient respond so quickly and readily to a confrontation with her own undesirable personality traits? Was the confrontation effective because of the introduction of the therapist's hostility as an overt factor in the relationship? In the case of the second patient, if she admitted to a deliberate lie to give support to a delusional belief, at what point did the delusion end and the lie begin? In fact, to what degree might a patient be consciously aware of projecting material onto the environment, and under what conditions and in what situations?

The more I thought about it the more I questioned the validity of currently accepted explanations about the paranoid process and its manifestations. After all, if the second patient could distinguish between what was a conscious deliberate lie and her delusional belief, how did she know that her delusional belief was delusional in the first place? These doubts in my mind bothered me enough to decide to seek an answer to them. I decided the best way to find out was from the paranoid patients themselves by starting with the full-confrontation technique. I began to do this four years ago and

since then I have been involved therapeutically with slightly over thirty paranoid patients in formal, long-term therapy; of these, two-thirds have been terminated.

Since then I believe I have been able to understand the paranoid patient better and, most of all, the patients themselves have shown me how to deal with them more securely and constructively, and thus my approach to the problem has undergone changes in the course of time.

Let me say here that I am not going to recommend formal, long-term therapy as treatment of choice except for those of you who care to learn more about the troubled and hideous world of the paranoid. It is a taxing, at times dangerous and risky experience, and without a doubt, consuming for the therapist.

By formal, long-term therapy I mean psychotherapy established on a contractual basis whereby in exchange for the therapist's best unfailing efforts to help the patient as long as he needs him, the patient agrees to assume full responsibility for himself as an adult, despite the problems involved. Of the many aspects of the contract the essence incorporates this formula: to the patient's request “help me because I am no longer able to help myself and I am desperate for help” the therapist answers, “I agree to help the best I can; because you are desperate I am certain you don't want me to fail you in my commitment to do the best I can; however, I also expect you not to fail me because I shall expect as much of you as you expect of me.” It is the patient's state of desperation that leads him to enter into the contract and undergo internal changes.

The Patient

There are several common traits and patterns of behavior in the paranoid patient I wish to consider.

First, normal early childhood feelings of envy and jealousy come under poor control in subsequent years and dominate in late childhood and adolescence.

Second, tolerance to interpersonal frustration and rage is not increased through familial experience; rather, stubbornness is fostered by the parents' inability to cope with the youngster's hostility which is

feared; typically, the parents develop a helpless, nagging attitude, constantly hounding the youngster who steadfastly refuses to accept responsible personal action. From this childhood experience the youngster learns that as long as he stubbornly adheres to his viewpoints, he can get away with anything, further justifying his position by blaming his parents because they are constantly hounding him—in fact, seeing himself as a victim of parental persecution.

Third, during the initial adolescent years he is faced with the full measure of his parents' weakness and helplessness; he is also frightened by his own feelings of envy and jealousy which are enhanced by normal competitive situations since, because he is poorly equipped, he finds quite realistically that his peers are inevitably more successful than he is. These experiences in turn frustrate him, and he is easily enraged to a point where he is strongly tempted to lash out as he did as a child; but he now has the biologic and physical power of an adult with a much greater potential for harm. His now outdated methods of coping, namely lying, self-deceit and avoidance fail him, but worst of all, not having had any opportunities in life for an honest self-appraisal and acceptance of himself as a human being, he is forced to isolate himself from human companionship. Here is the core of his own brand of hell: Stubbornly resisting the world around him, he has to live with his inner world of envy, jealousy, and rage, a rage that consumes him with hatred. It is a hell experienced with utter despair for he cannot escape from a most terrible kind of depression:—a real one because he has all the good reasons in the world to be thoroughly depressed, because he knows he is worthless.

Fourth, the paranoid patient is perfectly aware of his envy and jealousy, much as he may wish to deny it. He is also aware of his fear of becoming enraged and lashing out, and he is most acutely aware of his helplessness and inability to cope with normal, everyday human frustrations. Lastly, he is also very conscious and argumentative about his stubbornness but, if given the slightest opportunity, he is most willing and anxious to discuss the hellish existence of

his internal life. He is painfully aware of how he affects others, how he is avoided and how people lie to him to get rid of him. He has naturally all the experience and know-how to spot other persons with his own same problem.

Let us then examine the paranoid problem from the patient's viewpoint:

- (1.) He is envious, jealous, and stubborn.
- (2.) He can easily become enraged, hate and is fearful of both.
- (3.) He believes that he was always a victim of parental persecution, justifying this belief on the basis of what he should have and never got, and never made the effort to get, elaborating and rationalizing the why and wherefore, always blaming his parents or parent figures.

(4.) He is very much aware and conscious of the preceding personal experiences. If we then single out his fear and his constant attitude of, "I don't care two damns what you think or say or do, I won't go along anyway, regardless," we can consider the following: a frontal attack on the patient will never do because he is quite familiar with all forms of nagging and accusatory attitudes; he will in fact claim that we are persecuting him. The therapist must recognize the patient's fear and his own fear of arousing rage in the patient. Denying it simply creates a potentially dangerous relationship. The therapist must focus on the patient's troublesome envy, jealousy and stubbornness and completely ignore the beliefs and their content. The therapist must also make clear, if he decides to go ahead and help, that the patient is going to give him a difficult time but that he has faith in the patient's capacity to help himself. The safeguards for both therapist and patient are built into a carefully and clearly set out mutually acceptable contract of expectations and obligations. If this takes one month or twelve months, it still must be done.

This very personal elaborated contract between therapist and patient is crucial to the paranoid because of its measure of reassurance: it makes clear that he is indeed envious, jealous and stubborn, that he is frightened and capable of doing harm, but also that the therapist has these feelings

and fears but that he can cope with them and control them.

The establishment of a clear-cut thoroughly discussed personal contract is the first and most important practical step of treatment.

The second one is the use of chemotherapy. We are all familiar with the most common experience with the paranoid who is proffered all types of drugs, and which fail because of his stubbornness. Plainly stated, it is this: "No matter how much a drug may help me, even if I should be willing to go along with you and take it, I am going to prove to you that it's no good." If, however, this apparently unshakable attitude of stubbornness is dealt with through the personal contract, I can parenthetically guarantee that you will find that chemotherapy is extremely valuable and useful to the paranoid patient.

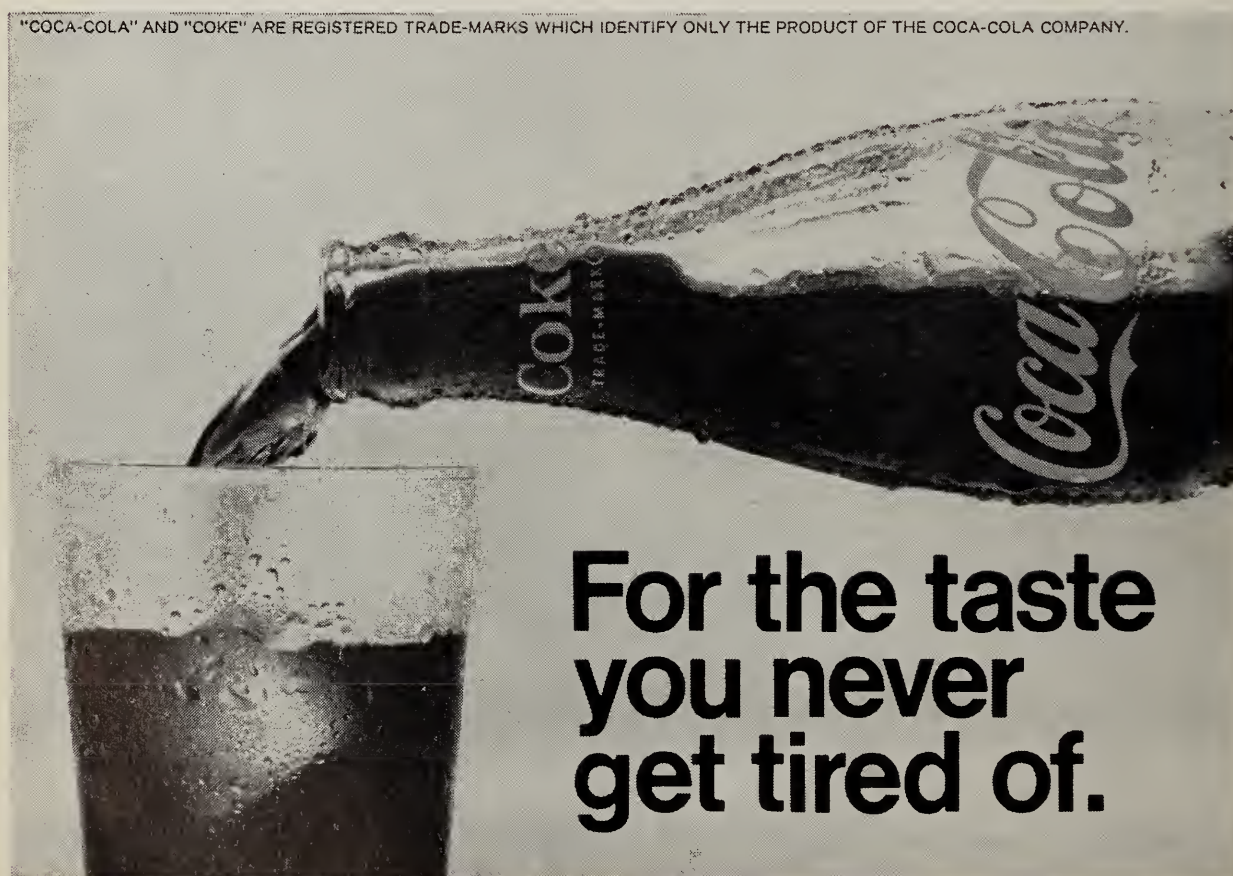
The establishment and acceptance of a contract between therapist and patient will require time and patience but it can be most rewarding. Chemotherapy then becomes an extremely valuable tool, not only in alleviating symptoms but as a magnificent crutch, a measure of support that en-

ables the paranoid patient to face himself, accept himself and begin corrective action on his behavior and attitudes. It is then that he may be ready for formal psychotherapy.

In conclusion, I have this to suggest:—that you take the time and effort with the patient to get a mutually acceptable and clear contract of obligations, responsibilities and expectations; true enough, it is the patient's desperation that motivates him, but afterwards he will be ready to make proper use of chemotherapy with excellent results. Realizing that like all of us he has the potentials for change that nature gave him, he is ready to move ahead and leave his hell to enter a meaningful life.

Unfortunately, the psychiatrist today is so bent on proving himself right that he has little time or inclination to give the patient the opportunity to prove himself wrong. Indeed I must express my gratitude to the paranoid patients under my care for a better understanding of the more subtle manifestations of human pain and suffering, for they have earned a good measure of self-respect for their courage and fortitude.

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Often this procedure is done merely for palliation when the venous obstruction is due to tumor. However, in post-phlebitic obstruction it may be a definitive mode of treatment.

Cross-Over Vein Grafts for Obstruction of The Iliac and Femoral Veins*

W. ANDREW DALE, M.D., Nashville, Tenn.

Obstruction of the iliac and femoral veins produces severe swelling of the thigh and even of the lower abdomen as well as considerable discomfort due to this tissue distention and seriously disables a patient. The striking appearance of the syndrome is matched by the severe disability which accompanies it.

Shunt-grafting in the venous system is a procedure required infrequently, and many physicians are not aware of its possibilities for relief of the congestive edema and pain which accompany chronic venous occlusion. Recent experience with 15 cases where the saphenous vein was used as a cross-over shunt-graft to carry blood from the obstructed venous system of one leg to the patent venous system of the other leg has indicated that this operation is simple, does not involve great risks, and offers relief in a high percentage of cases.

The common causes of chronic obstruction of the iliac and femoral veins are tumor and venous thrombosis. Their incidence in the 15 cases is shown in table 1,

Table 1
ETIOLOGY IN 15 CASES

Venous thrombosis	4
Tumor	11
Cervix	6
Lymphoma	2
Bladder	1
Rectum	1
Prostate	1

which indicates the variety of pelvic tumors as well as the 4 post-thrombotic venous obstructions which have been treated.

Plan of Diagnosis and Treatment

The program of diagnosis and treatment outlined in table 2 was followed with necessary individual modifications for patients

Table 2

PLAN OF MANAGEMENT

1. Diagnosis:—tumor or phlebitis?
Examination—includes pelvic and rectal visceral x-ray—I.V.P., barium enema
Cystoscopy, sigmoidoscopy
Surgical exploration
2. Delineation of venous block by phlebography
Site
Extent
Contralateral patency
3. Timing
Is phlebitis "stable or fixed"?
Will patient survive a tumor 6 or more months?

who presented with chronic occlusion of the iliofemoral venous system. The high incidence of tumor makes a careful search for this mandatory. Laparotomy or extraperitoneal exploration may be necessary to establish the diagnosis and to obtain tissue for microscopic analysis. This can be done at the same time the cross-over venous shunt is placed so only one operative procedure is required.

Delineation of the site and extent of the venous occlusion is accomplished by phlebography using 50 ml. of 60% Conray. (Fig. 1.) X-ray exposures made at 2 second intervals indicate the flow pattern of the radiopaque material into the ilio femoral venous system and inferior vena cava. Following visualization of the obstructed venous flow, a contralateral phlebogram is made to determine the suitability of the saphenous vein on that side and to be certain of the patency of the iliac system.

Cross-over shunt-grafting is offered to the patient if the general condition allows spinal anesthesia and a soft tissue operation, and if the outlook for life (in patients with tumor) is over 6 months.

The Operation

The feasibility of venous reconstruction has become increasingly apparent over the last several years. Our laboratory experi-

* Presented at the meeting of the Middle Tennessee Medical Association, Gallatin, Tenn., May 18, 1967.

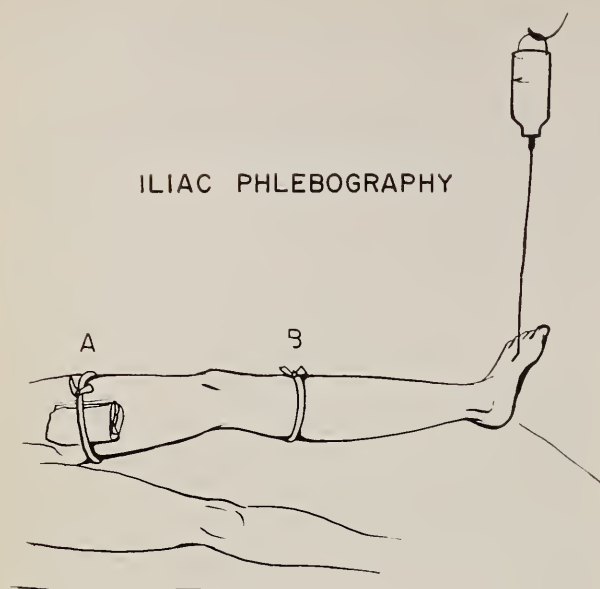


FIG. 1. An intravenous route is secured by placement of a 23 needle into a foot vein or a medium Intracath into an ankle vein through which 50 ml. of Conray-60 may be injected. Tourniquet at B insures passage of the superficially placed radiopaque material into the deep veins. The tourniquet at A is constricted tightly over a pad to block the femoral vein until its sudden release at which time a series of film exposures at 2 second intervals allows iliac phlebography.

ences as well as that of others has shown that autogenous veins are best suited for peripheral venous replacements or bypasses.^{1, 2} Palma and Esperon³ in 1960, reported successful use of cross-over vein grafts in Uruguay, and Izquierdo,⁴ in 1963, recorded a large number of these procedures done in Mexico City. No phlebographic postoperative studies were obtained and his results are difficult to analyze. The initial report⁵ in 1965 of our first 7 cross-over vein grafts is herein enlarged to a total of 15.

The 15 patients who have had cross-over vein grafts placed have been culled from many other patients who did not appear to have symptoms which were severe enough to warrant attempts at a relatively new procedure whose technic is illustrated in figure 2.

The common femoral vein of the symptomatic side is initially explored and freed sufficiently for a specially-devised clamp to be placed so the anterior surface of the common femoral vein can be used for the end-to-side venous anastomosis. The contralateral saphenous vein is then carefully dis-

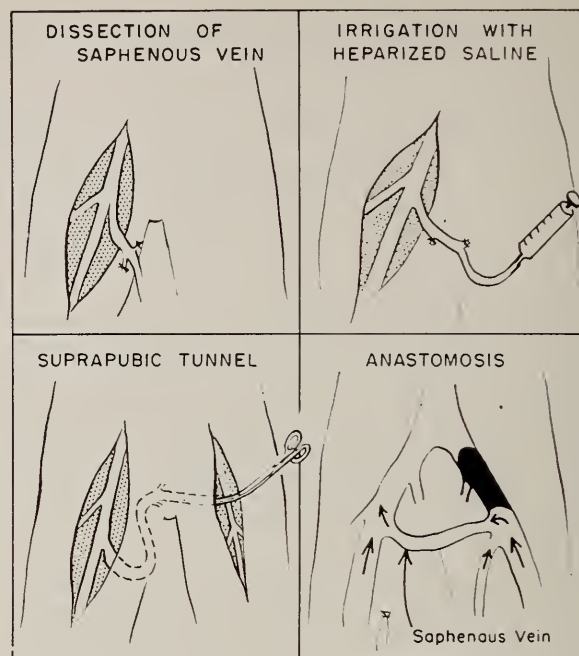


FIG. 2. Technique of the cross-over vein graft is shown here and is explained in text.

sected out and its tributaries tied with non-absorbable material to a distance where measurement with a tape indicates that sufficient length for the cross-over graft has been obtained. The saphenous vein is then cut across distally and flushed with heparinized saline to prevent clotting of the lumen during further manipulation. A bulldog serrefine clamp is then placed at the saphenofemoral junction to prevent reflux of blood from the femoral vein into the saphenous vein while the venous anastomosis is carried out.

A sterile sigmoidoscope is pushed across the suprapubic space in the fatty subcutaneous tissue and through this tunnel is placed a long clamp to lead the freed contralateral saphenous vein across the suprapubic region. A terminolateral venous anastomosis is done using continuous 5-0 silk. The stoma should be at least three times the diameter of the vein graft itself.

Clotting is discouraged during the venous occlusion by intravenous administration of 50 mg. of heparin in an aqueous solution. It is ordinarily not necessary to use the antidote protamine at the end of the operation since bleeding from the low pressure venous system is not a problem. No postoperative anticoagulant therapy has been used for fear of bleeding complications in the wounds or in the cross-over tunnel.

The operative procedure is technically easy and requires approximately 90 minutes. Since it transverses only soft tissue and does not enter any body cavity, it is not particularly disturbing to the important bodily functions of the patient.

In table 3 are summarized the results

Table 3

STATISTICS OF 15 PATIENTS' RESULTS

Clinical relief	12
Phlebogram patent	4
Phlebogram blocked	2
No phlebogram	6
Failure	3

in the 15 patients summarized herein. Clinical relief has occurred in 12 of the 15, while 3 failures are known. Four of the 12 patients with clinical relief have grafts which are proved to be patent by phlebograms. Figure 3 shows two of these.

Summary

Clinical success in 12 of the first 15 patients having cross-over vein grafts for the relief of chronic iliac and femoral venous obstruction indicates this operation be a promising one for palliation of the severe

disability which occurs when tumor or phlebitis blocks the iliofemoral venous system. The operation itself is without great risk, is confined to the soft tissues of the upper thighs and suprapubic region, does not interfere with radiation therapy if required, has been well tolerated by patients, and has produced gratifying relief of edema and pain in a high proportion of patients.

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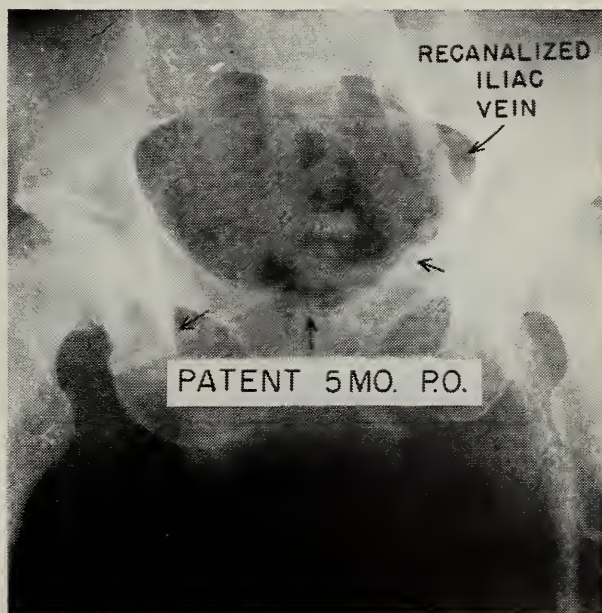
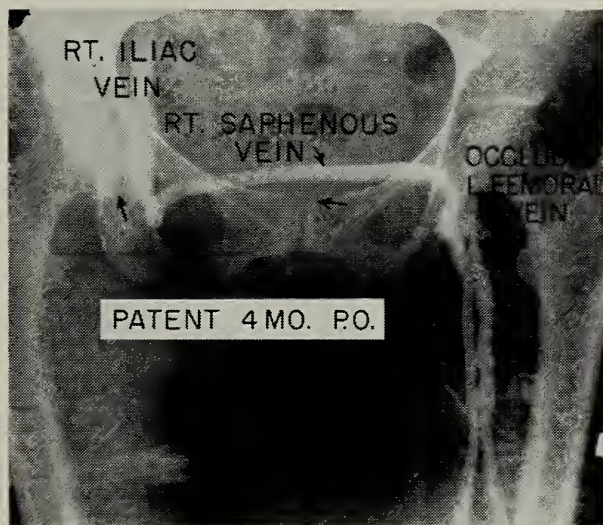


FIG. 3. Patency of cross-over vein grafts is by phlebography. *Left*, shows patent cross-over graft 4 months following placement to carry blood around iliac and femoral veins occluded by recurrence of carcinoma of cervix. *Right*, shows cross-over patent graft 5 months after operation

done for iliac vein occluded by thrombus. During the post-operative period recanalization of the iliac vein itself has occurred so blood is flowing through the main channel as well as through the patent cross-over graft. Edema was relieved in both patients.

Beta Adrenergic Blockade*

G. DANIEL COPELAND, M.D.,† Memphis, Tenn.

There is widespread interest in a group of relatively new drugs which are known collectively as beta adrenergic receptor blocking agents. While none of this group is now commercially available, propranolol H cl (Inderal) is now extensively employed in clinical trials which should determine whether or not this drug is effective in the treatment of angina pectoris and cardiac arrhythmias.

To explain the differences in action of norepinephrine and epinephrine on different sympathetic effector organs, it has been postulated that two different types of receptor sites exist in the effector cells,—one type is called *alpha adrenergic receptor* and the other type is called *beta adrenergic receptor*. It must be emphasized that no structure, or specific cellular component, has so far been identified which might be considered the adrenergic receptor site; it is by the behavior of the effector organ in response to sympathomimetic amine which determines the presence of the alpha or beta receptor. In the cardiovascular system, stimulation of alpha adrenergic receptors results in arteriolar constriction, while stimulation of beta adrenergic receptors produces arteriolar dilatation (in muscle), augmentation of cardiac automaticity, and enhanced myocardial contractility. It would be expected from this that a beta adrenergic blocking agent would diminish heart rate, heart automaticity, and myocardial contractility and might possibly induce bronchospasm. In the intestines, stimulation of both alpha and beta adrenergic receptors inhibits smooth muscle contraction (except sphincters). Smooth muscle in the bronchial walls is relaxed by stimulation of beta adrenergic receptors while splenic contraction may result from activation of alpha adrenergic receptors. No alpha adrenergic receptors apparently exist in the heart or

tracheobronchial tree and no beta receptors are demonstrated in the splenic capsule, the pilomotor muscles or the sweat glands. Isopropyl norepinephrine (Isuprel) stimulates only beta adrenergic receptors while phenylephrine (Neosynephrine) and methoxamine (Vasoxyl) predominantly stimulate alpha adrenergic receptors.

Alpha adrenergic receptor blockade can be accomplished with ergot alkaloids, phenoxybenzamine (Dibenzylamine), tolazine (Priscoline) or phentolamine (Regitine). The clinical application of Regitine for the diagnosis and in the treatment of pheochromocytoma is well known; Priscoline has been used as therapy for vasospastic peripheral vascular disorders while Dibenzylamine has been used in a treatment for shock.

Beta adrenergic receptor blockade has lately been accomplished with the drug pronethelol (Nethalide) which has been used in extensive clinical trials. These trials were limited in part by pronethelol's side effects which in man include lightheadedness and slight incoordination, followed by nausea and vomiting. (Mice developed lymphomas.) Propranolol, now in use can induce beta adrenergic blockade at about one-tenth the dose required with pronethelol, with no side effects at the effective dose; it has not caused tumors in mice.

Beta adrenergic blockade in humans with propranolol produces a fall in heart rate, a reduction in cardiac output, a reduction in resting stroke volume, a reduction in ventricular diastolic and systolic volume and therefore of calculated tension of the myocardial wall; oxygen consumption falls by an average of 25 percent. The dose required to induce beta blockade varies and must be determined, as with other cardiac drugs, by the clinical response; slowing of the heart rate is a convenient clinical sign. Propranolol antagonizes the beta adrenergic stimulating actions of the catecholamines. Exercised subjects show a significant decrease in heart rate and systolic blood pressure after propranolol. When given during

† From the Department of Medicine, University of Tennessee College of Medicine, Memphis, Tenn.

* Contributed through Professional Education Committee, Tennessee Heart Association.

right heart catheterization, propranolol produced an increase in pulmonary artery pressure and total pulmonary resistance.

Propranolol has been demonstrated to be a successful treatment for the majority of supraventricular tachycardias and in more than a few cases of ventricular tachycardia and ventricular premature systoles. It is possible that the anti-arrhythmic action of propranolol is not produced by beta-blockade, but by a "quinidine-like" property of the drug. Most investigators agree that propranolol is of special value in the management of arrhythmias due to digitalis intoxication. During cardiac catheterization in cases of hypertrophic subaortic stenosis, it has been shown that propranolol intravenously reduces the ventricular pressure gradient induced by Isuprel; clinically, propranolol has been used in these cases to control symptoms which include angina, syncope, vertigo, and palpitations.

When given cases of angina pectoris, clinical trials indicate that low dosage (40 mg. per day, orally) produces questionable or no improvement but that with a higher dosage (80 to 120 mg. daily) most patients report improvement in exercise tolerance.

Many patients who will not respond to this dose will respond to higher doses, e.g. 160 to 200 mg. daily. Propranolol has seemed to reduce the mortality when given routinely to a series of cases with myocardial infarction.

The most harmful effect of propranolol is intensification of heart failure due to loss of sympathetic support to the failing myocardium; propranolol is contraindicated in heart failure and in clinically impending heart failure. Propranolol may intensify bronchoconstriction in bronchial asthma and should not be given to asthmatics; fortunately this action is slight in normal individuals. After parenteral administration, hypotension and atrioventricular conduction defects have been observed.

It can be seen from this brief summary that much remains to be learned about mechanisms of adrenergic action and about adrenergic receptors. That propranolol shows much promise and has low toxicity is evident. It is hoped that this drug is also a prototype of more selective beta adrenergic blocking agents which will have wide clinical application in cardiovascular diseases.

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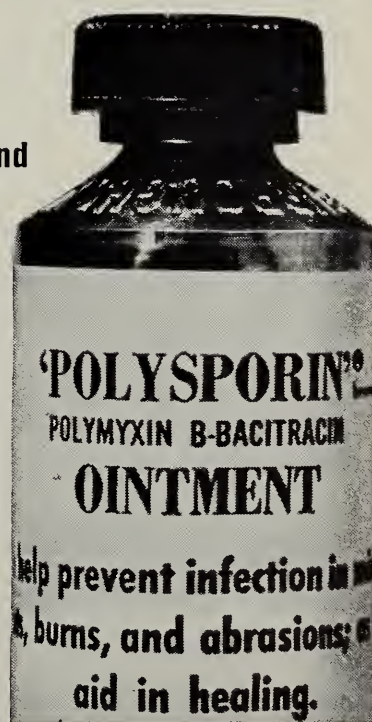
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STAFF CONFERENCE

Nashville Veterans Administration Hospital*

Treatment of Narcotic Addicts on Open Wards

DR. JOHN GRIFFITH: The trend today is to treat the emotionally ill on open wards where they may have a greater freedom and sense of dignity. However, treating a narcotic addict in such a milieu necessitates a modification in our usual approach, and this will be illustrated in this conference.

Mr. Nottebart, our fourth year medical student, will present the psychiatric history.

MR. HARRY NOTTEBART: This patient is a 40 year old steel worker who first presented at this hospital complaining of renal colic. He was discovered to be addicted to Demerol and was transferred to the Psychiatric Service.

The patient's present illness began 11 years ago when he was hospitalized for severe right flank pain found to be caused by a walnut sized renal calculus. It was necessary to remove the patient's right kidney and he received Demerol for several weeks while convalescing. After leaving the hospital the patient continued to use the drug for 1½ years. He then was arrested and sent to prison in Maryland for 5 years on the charge of drug addiction. According to the patient, he has been out of prison 4 years and did not use drugs until about one year ago when he developed renal colic and was given Demerol by a physician. After receiving several doses, he resumed the compulsive use of drugs. Interestingly, he did not tell the physician that he was an addict.

For the past 10 months the patient has been using about 1200 mg. of Demerol per day which he administers to himself by I.M. injection. Despite his use of drugs the patient insists he has not missed work and was able to walk high steel scaffolding. He admits to having lost 8 pounds body weight.

As regards his mental status, the patient was observed to be a short, thin man who usually was quite careless about his personal appearance. He seemed always eager to talk and would affect a casual air that seemed to be more of a posture than an expression of his true feelings. Throughout the interviews the patient would be both provocative and hostile, then rapidly retreat to a friendly position. However, his emotional reactions were generally appropriate and he showed no thought disorder. Indeed, much of his content of thought was aimed at "normalizing" his experiences. To him, his use of drugs is

simply explained: he is a "medical" addict. The patient denied delusions or hallucinations, was oriented, showed no intellectual impairment and his judgment was intact.

Physical examination was unremarkable and no needle marks could be found.

Mrs. Girtman's social history covers much of his personal history.

DR. GRIFFITH: Fine but first, Mrs. Girtman, tell me were you ever able to talk to the patient's wife?

MRS. RENE GIRTMAN: No, not really. I was able to talk to her by phone, but the patient has vehemently opposed to our making contact with her, insisting that he has been telling her about his addiction gradually. Most of my information, therefore, comes from the patient.

The patient grew up in a small Pennsylvania town. His father was 54, his mother 40, when the patient was born. He had one brother and one sister. He described his father as a retired Army Colonel who was very strict but fair, and one who would never ask anyone to do something he was unwilling to do himself. The patient states that he was very close to his father; his sister was close to the mother. The family lived on a farm and the children were expected to work.

At age 14 the patient's parents were killed in an auto-train collision. By that time, the patient's brother was in the army and his sister was working. The patient falsified his age and entered the Army, only to be discharged 6 months later because of a kidney injury received during maneuvers. Since then the patient has worked on various construction jobs as a member of the Merchant Marine. He often changes jobs and travels about the country.

The patient has been married twice. His first marriage ended with the death of his wife in an auto accident. A son by this marriage was adopted by the patient's in-laws, ostensibly because he had begun to drink excessively. His second marriage, some 4 years ago, is described by the patient as being very close. His wife confirms this. The patient's second wife is a widow with 2 children now aged 12 and 14. The patient has adopted these children and treats them very well. The wife is vaguely aware that her husband is an addict but insists that she loves him and will stand by him.

Mr. Nottebart has described the patient's use of drugs. It should be added that the patient is very bitter about being arrested when he approached a physician and asked for Demerol. He states that he was treated brutally in prison and spent 11 months in solitary confinement. Indeed, his history is punctuated by violence. His father, and mother, sister, and wife were killed in auto accidents, and his brother in World War II. He has been stabbed at least once and

* From the Department of Psychiatry, Vanderbilt School of Medicine and Veterans Administration Hospital, Nashville, Tennessee.

has been involved in several fights. Also, as regards his drug history, the patient has approached VA hospitals 47 times and requested drugs for pain. Many of these were during a period when he claims he was not using drugs.

DR. GRIFFITH: Thank you, Mrs. Girtman. Dr. Martin, what did you find on psychologic testing?

DR. RICHARD MARTIN: Psychologic tests were administered on March 3, 1967, and included the Civilian AGCT, Minnesota Multiphasic Personality Inventory, Rorschach, Bender-Gestalt, TAT, and Szondi. These tests indicated that the patient is of high average intelligence (Equivalent I.Q. 115) with an outwardly structured adjustment. For example, in response to the MMPI questions he gave answers which one would expect from a normal, conservative individual with a rather lackluster attitude. However, he has a rather high defensive scale and is probably attempting to appear more normal than he is. To put it another way, addiction to him is a relatively objective isolated fact, a medical addiction, which is not causing self doubt.

On a deeper unconscious level more uneasiness and isolation can be inferred by his Rorschach responses. There seems to be a basic sort of emptiness which probably characterized his interpersonal relationships even during childhood. He also is unable to assess his inner feelings and organize them in a mature way although he is able to adequately assess outside phenomena.

Diagnostically, the tests indicate a somewhat immature and empty personality which, except for addiction, seems to be functioning without marked disturbance. In this case, I would consider drug dependency to be the primary diagnosis rather than a secondary diagnosis.

DR. GRIFFITH: Fenichel considers that the personality defect that leads to drug addiction is that the person has no strong emotional ties to human beings. Does this describe the patient?

DR. MARTIN: Yes, I think that this describes the man beautifully. As regards his inner experiences this man is rather alone and uncertain, but this is covered by an outward personality that does not seem to be much disturbed. Incidentally, this describes most of the addicts that we have seen here.

DR. GRIFFITH: Miss Kent, as charge nurse you have probably observed this patient more than anyone else. Has his ward behavior been consistent with what we have heard so far?

MISS DOROTHY KENT: In general, yes. On the ward we have noticed that he is an intelligent person who is eager to talk. However, he is quick to find fault with the ward and certain personnel, but most of his hostility was directed toward Dr. Griffith and Dr. —, a patient who is also a Demerol addict. Although the patient appeared to socialize a lot, this was really quite superficial. He is a true "loner" with no real friends.

When the patient first came to the ward, Dr. Griffith explained to me, in front of the patient, how he wanted the patient treated. The patient was to receive 200 mg. of Demerol by mouth every 3 hours. The patient could refuse a dose, if he wished, or could reduce the dose. However, once the dose was reduced, the patient was told, it would not be increased again.

The important part of his treatment, however, was that the nurses were not to criticize the patient for taking drugs or praise him for decreasing the dose. This sounds simple, but is difficult to put in practice. The patient took only one 200 mg. dose of Demerol and immediately dropped to 150 mg.; thereafter, he gradually decreased his dose over a 2 week period until he was off the drug entirely.

DR. WILLIAM F. ORR: When did he receive his last dose?

MISS KENT: About 28 hours ago. I might add that he never showed objective signs of narcotic withdrawal or pressured the staff for more drugs.

DR. GRIFFITH: Is the patient ready to come in?

(The patient comes in.)

Patient interview (excerpts):

DR. GRIFFITH: Tell us how you first came to use drugs.

PATIENT: Well, I just had kidney trouble. I had a kidney removed, and was given drugs. When I got out of the hospital I kept using 'em. Then I got off 'em for and er— number of years, then got on 'em again when I got another kidney stone.

DR. GRIFFITH: How do these make you feel? Drugs, that is.

PATIENT: They don't really. They don't make me feel high like alcohol. Seems after I used 'em for a few days, I wouldn't feel any way just have physical discomfort if I didn't use drugs.

DR. GRIFFITH: How much would you use?

PATIENT: I started with 100, then ended up taking 150 mg. every 3 hours.

DR. GRIFFITH: How would you get it?

PATIENT: From physicians mostly; they couldn't very well refuse without getting themselves into trouble.

DR. GRIFFITH: Blackmail?

PATIENT: Well, er, no. I would just tell them that if it (drugs) was good enough for them, it was good enough for me. I could blow the whistle on them as easily as I could blow the whistle on myself. That's how I got 95% of my drugs anyway.

DR. GRIFFITH: And the other 5%?

PATIENT: From pushers.

DR. GRIFFITH: By pushers you mean someone who would come up to you and insist that you buy drugs from them?

PATIENT: (sarcastically) You know better, Dr. Griffith, I would look them up. They never looked me up.

DR. GRIFFITH: How much did this cost?

PATIENT: About \$25 a day (about one day's salary for this patient)

DR. GRIFFITH: That's a lot of money, how would you get it?

PATIENT: Work.

DR. GRIFFITH: Never stole?

PATIENT: Not once!

DR. GRIFFITH: Have you ever been in jail?

PATIENT: Oh, I went to a doc, told him I was stuck and needed some help. Said he would help me; gave me a shot. Ten minutes later I had a couple of pistols stuck in my back and I was carted off to jail.

DR. GRIFFITH: How would you compare that situation with your present hospitalization?

PATIENT: Well, here I was at least given the choice of staying in the hospital and getting off drugs, if I wanted to, or going to jail. But the first time in Baltimore, I was told one thing and another happened; and if you mean was I resentful the

first time, yes, I was resentful. I felt I had been betrayed.

DR. GRIFFITH: I believe you have expressed some resentment about me and this hospitalization.

PATIENT: (sighs) Well, your attitude seemed to be that everything had to go your way and the other fellow's viewpoint didn't mean anything.

DR. GRIFFITH: What was the issue in your mind?

PATIENT: Well, for one thing, the part where I had to report every 30 days for a Nalline (nalorphine) test and a urine test or you would notify the police. You know as well as I do that it isn't the arrest that I'm worried about, it's just that every time something happens in town, the police will haul me in for questioning. I'll lose my job and my family will suffer.

DR. GRIFFITH: That's true. The police do that.

PATIENT: But now I can see that you are doing it for my benefit.

DR. GRIFFITH: Which is that you need the Nalline test.

PATIENT: Definite . . . No, you're putting words in my mouth. I don't need the test but it is insurance that I won't go back. Of course, it means that I will have to give up my job and move to Nashville. I'll be lucky to make \$2.00 an hour. That is just enough for essentials. It will mean hardships for my family, but I'll have to get by somehow.

DR. GRIFFITH: Here in the hospital you withdrew from drugs all by yourself. Why did you do this when you were told that you could take drugs indefinitely if you wanted to?

PATIENT: Well, I don't think I withdrew all by myself. I felt it was up to me to reduce it, but I felt that I was getting a certain amount of support.

DR. GRIFFITH: How do you mean? Isn't the truth of the matter that no one here cared one way or another whether you took drugs or not?

PATIENT: No, I wouldn't say that . . . er, well, really all I can remember is that when I cut the drug down, someone said fine. You're doing good, fine.

(Even this bit of reinforcement is not part of the therapeutic plan.)

DR. ORR (to patient): There is something I can't understand. If you withdrew yourself from drugs here in the hospital, why didn't you withdraw yourself outside the hospital?

PATIENT: Well, there you've got me! Maybe it's like I told Dr. Martin the other day; I didn't feel that I could withdraw alone on the outside because I couldn't go to my wife because the attachment is too close. If I had, she would have said, "why don't you take a little bit?" She is too sympathetic and this would have defeated the purpose.

(Patient leaves.)

DR. GRIFFITH: The addict is somewhat easier to understand if one accepts the premise that "normal" individuals, and most psychiatric patients for that matter, are "addicted" to people. That is, we "normals" are dependent upon emotional interactions with others to supply our human needs. Most patients, too, when admitted to an open ward are reasonably satisfied once their need for human association is met. The narcotic addict, on the other hand, is much more inclined to satisfy his emotional needs with drugs. People, then, become merely objects to manipulate—either manipulated for drugs or to discharge anger, or both. In short, the addict plays a "game" with nonaddicts.

For example, a typical "addict-game" opens with the patient saying, usually in a subtle fashion: "Doctor you're a rat for making me suffer without drugs." If the doctor argues the matter, he makes the move that the patient wants. The patient, then, feels justified to escalate the argument by signing out of the hospital or having friends bring him drugs from outside. This can be a very serious problem on an open ward where the patient is not restrained. To counteract this game addicts play, we have devised an approach which we term an anti-game. An anti-game is a game that if one plays it, he cannot play his usual game. To illustrate, in response to the addict's statement, "Doctor you're a rat for making me suffer without drugs," we respond with a clear message: You may take drugs as long as you like. Of course we insist on giving frequent oral doses so the blood level of the drug does not change.

This the addicts find to be unpleasant. However, they do not have withdrawal symptoms. Typically, addicts in this program rarely discuss withdrawal symptoms or beg for drugs.

Another problem is that the addict will say (if you don't do what I want), "You don't care about me." The anti-game response is: We will do anything for you but care. This has been found to illustrate to the patient that the taking of drugs is his decision, not the doctor's.

Once the addict is withdrawn, he will invariably attempt another game with the doctor. This begins with, "Isn't it nice that I'm not taking drugs?" The anti-game response is. No one cares whether you take drugs or not. This prepares the patient for hospital care in which he must report every 30 days for five years to have a Nalline test or urinalysis for narcotics (the Nalline test is relatively insensitive to Demerol) or be reported to the police. Even so, we explain that the choice is the patient's and that he is free to choose.

DR. EDWARD FANN: I think that this is a very valid concept since the dynamics of the passive-aggressive are that he doesn't mind hurting himself as long as he hurts someone else. Withdrawing emotionally takes the patient's weapon away from him and he must contend only with his own internal reality.

DR. ORR: A question in my mind is, is this man as addicted as he says he is?

DR. GRIFFITH: Probably not. We take the patient at his word and take the chance that he might become overly narcotized. Interestingly, this patient took only one oral dose of 200 mg. He immediately decreased to 150 mg. 3 hours.

DR. ORR: Did he show any evidence of narcosis from any of his doses?

MISS KENT: No so far as we could observe.

MR. KELLY: Was he, then, telling me the truth when he said that he didn't get a sense of euphoria from taking the drug?

DR. ORR: In the early stages the patient probably does experience euphoria. However, once he has developed tolerance to the drug, it is probably more a matter of keeping ahead of withdrawal symptoms. Addicts who use intravenous narcotics re-

port that euphoria lasts only for a few minutes.

MRS. ROSELLA STUART: Are withdrawal symptoms somatic in origin?

DR. ORR: Yes, even babies delivered from addicted mothers show withdrawal signs.

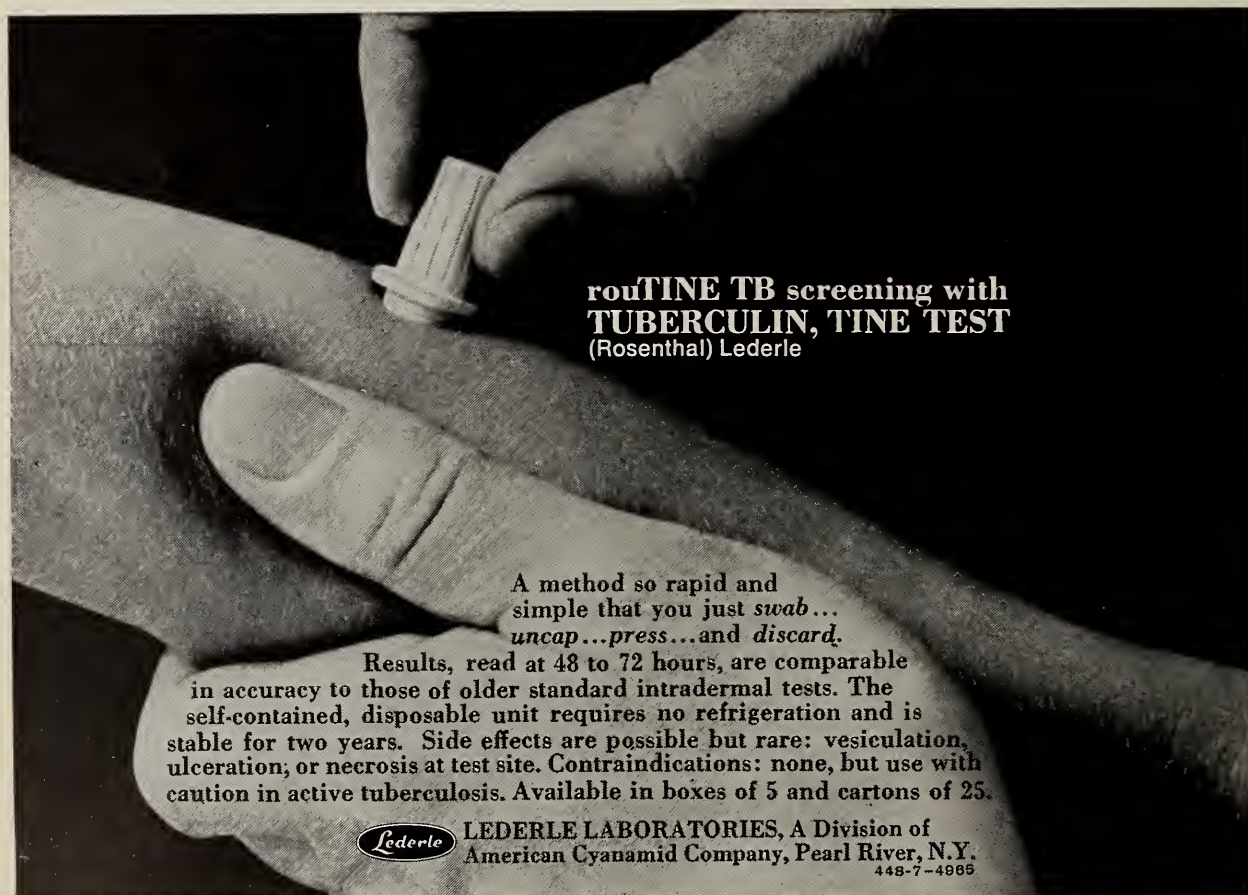
MR. KELLY: However, I still cannot understand why this patient must deny having euphoria.

DR. BASIL BENNETT: In group therapy this patient denies any feeling. He sees himself as a medical addict and denies all

personality problems.

DR. STEPHEN CAPPANNARI: Was the patient off drugs for seven years?


DR. GRIFFITH: Probably not. He was seeking hospital admission during this time. In summary, this man is a wonderful actor. All of his emotions show in his face. Perhaps this is the best approach after all—to deal with the patient as an actor and give him a part to play that will result in his ultimate good. Who knows, after a drug free experience he may be more amenable to conventional psychotherapy.



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From the
Executive
Director

E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

SUMMARY OF TMA BOARD OF TRUSTEES ACTIONS—JULY 9, 1967

TMA Obtains Property Adjacent to Headquarters Building

● The Board gave final approval for the purchase of the property adjacent to TMA headquarters in Nashville. The property will be used for future building expansion.

IMPACT

● Approval for an additional sum of \$500 was granted by the Board for the educational and administrative phase of IMPACT activities. The Chairman of the IMPACT Board, Dr. R. C. Sexton, Knoxville, presented a detailed statement and report as to the plans and programs being implemented at present by IMPACT to increase the membership.

New Type of Insurance Approved

● Upon recommendation of the Committee on Insurance, the Board approved a new plan of extended coverage for the present liability-malpractice plan. The excess catastrophic malpractice and personal liability coverage will be underwritten by the Insurance Company of North America. It will be administered by the present agency for the TMA liability and malpractice plan.

Technical Advisory Committee — Comprehensive Health Planning

● P.L. 89-749, the Comprehensive Health Planning Act, will be administered by the Department of Public Health. Action taken by the Tennessee General Assembly required a Technical Advisory Committee to be actively involved in the planning and distribution of federal health care grants in Tennessee. There will also be a Comprehensive Planning Advisory Group which will be largely composed of consumers of services. The Board selected nominees for the Technical Advisory Committee for submission to the Commissioner of Public Health. They were: R. B. Wood, M.D., Knoxville; Frank B. Graham, III, M.D., Chattanooga; K. M. Kressenberg, M.D., Pulaski; John M. Tudor, M.D., Nashville; Luther Beazley, M.D., Nashville; Chas. C. Smeltzer, M.D., Knoxville; G. Baker Hubbard, M.D., Jackson; Francis H. Cole, M.D., Memphis; and O. M. McCallum, M.D., Henderson.

Officers and Trustees To Meet with County Medical Societies

● To extend communications between the State Association and County Medical Societies, TMA Officers and members of the Board of Trustees will make themselves available to appear before county societies upon invitation.

Statement on Drugs Submitted to Senate Small Business Committee

● The Board approved a statement embodying the contents of Resolution No. 14, adopted in the April meeting of the TMA House of Delegates, opposing the compulsory prescribing of drugs by generic names. The statement was developed and submitted to Senator Gaylord Nelson, Chairman of the Monopoly Subcommittee of the Senate Small Business Committee, with a request that the statement be included in the written record of the hearings.

Annual Meeting Dates Confirmed for 1969

● The Board confirmed the dates of April 10-11-12 for the TMA annual meeting that will be held in Gatlinburg in 1969.

Other Actions

---Heard a report from Dr. Oscar McCallum on results of the AMA National Congress on Environmental Health --- Approved a recommendation that the TMA Committee on Occupational Health

be renamed to "The Committee on Environmental and Occupational Health" --- Heard a report from Dr. Tom Nesbitt, Chairman of the Committee on Governmental Medical Services, on the activities of the Committee and actions taken in its meeting on July 6th --- Abolished the Committee on Regional Medical Centers and Liaison To Medical Schools and established two separate committees. A new committee dealing entirely with the problems involved with heart, cancer and stroke, was established and named the "Committee on Regional Medical Programs" --- A "Liaison Committee to Medical Schools in Tennessee" was appointed to deal exclusively with medical education and issues involved with the medical schools in Tennessee.

Appalachia Health Care Program

● The Board believed that county societies should become more active in the planning and development of all federal health care programs, including Appalachia. A copy of the guidelines, developed by the AMA, has been sent to all county society presidents and secretaries requesting that the county societies become actively involved in all government medical programs and to keep TMA informed of any activities in their area.

* * *

TMA Committees Are Busy

● The Committee on Scientific Work and Postgraduate Education met on August 5th to plan the scientific program for the 1968 annual meeting. The Committee met on August 6th with representatives of all of the organized specialty societies to coordinate further planning for the meeting. July 26th was the date for the meeting of the Committee on Emergency and Disaster Medical Care. The Committee requested that its name be changed for clarification to "Committee on Emergency Medical Services". Among the Committee's actions was a recommendation for TMA to request the Governor to appoint an Advisory Committee on Emergency Medical Services in the State of Tennessee. The Committee also considered a proposal for a survey of the state on emergency medical services. A thorough airing of the package disaster hospitals was heard and discussed by the Committee.

Advisory Committee To Department of Public Welfare

● The Advisory Committee met on July 20th for the purpose of reviewing the Welfare Department's drug formulary. The Committee considered 79 requests for new drug additions to the Department's formulary. Some 15 additions were recommended.

Medicare Carrier Reports on Tennessee Operations

● One year ago, the Equitable Life Assurance Society of the United States established its Tennessee office for the administration of Part B, Medicare, with 44 employees. The operation now consists of 133 employees. The Tennessee Part B, Medicare Office, is currently paying physicians for the over 65's at a rate of 2500 claims per working day or about 12,000 claims per week. The amount of these claims totals over \$300,000 each week. All totaled, Equitable issued 170,460 checks in Tennessee for a total of \$9,892,542.00 in medical insurance benefits during the year. It is stated that the average time between receipt of claim and mailing of the check to the physician is about 11 days. The national average for processing Part B claims is 18 days.

"We feel success of the program has in no small part been due to the cooperation of Tennessee's doctors and especially the Tennessee Medical Association. As soon as our designation as Part B intermediary for Tennessee was announced, we greatly expanded already existing lines of communication with Tennessee physicians and their Association." This was a statement made by Mr. J. Henry Smith, President of the Equitable Life Assurance Society of the United States, in Nashville on July 17th.

Public Service

THE TENNESSEE TEN

Medicare Amendments Adopted by House

● The House of Representatives has adopted H.R. 12080, a bill containing a variety of amendments to the social security law and to Medicare. The legislation was a product of the House Ways and Means Committee after extensive public hearings and closed door study and was submitted by the committee's chairman, Congressman Wilbur Mills of Arkansas. The bill now faces Senate action.

Covered Days

Several major medical provisions are contained in the proposal. The number of covered days of hospitalization which could be covered in a spell of illness would be increased from 90 to 120 days. The patient would be required to pay a co-insurance cost (\$20 at the present) for the additional days.

Part B Payments

In addition to the two methods of paying for physicians' services under current law, the physician would be authorized to submit his itemized bill to the insurance carrier for payment. Payment would be made to him if the bill was no more than the "reasonable charge" for the services as determined by the carrier. If the charge is higher, 80% of the "reasonable charge" would be sent to the patient, not the physician. If the physician does not wish to receive the payment himself, he may direct that payment be made to the patient. If the physician is unwilling to submit the bill or if he does not wish to accept the carrier's determination of what is a reasonable charge, the patient may submit the itemized bill and be paid 80% of the reasonable charge.

Outpatient Services

Hospital outpatient diagnostic services would be covered under part "B" program rather than part "A" at present. The change would thus include the part "B" deductible and co-insurance features.

Certification

The requirement in the present law that a physician certify that an inpatient in a hospital requires hospitalization at the time the individual enters the hospital would be eliminated.

Hospital Payments

The Department of Health, Education and Welfare would be given the authority to experiment with alternative methods of reimbursing hospitals which would provide incentives to keep costs down, while maintaining quality of care.

Radiological or Pathological Services

The payment of full "reasonable charges" for radiological or pathological services furnished by physicians to hospital in-patients would be authorized. Under existing law, a 20% co-insurance is applicable and this change would be effective for services performed after 1967.

Podiatry

The definition of a physician would be amended to include a doctor of podiatry with respect to the functions he is authorized to perform under the laws of the state in which he works. However, no payment would be made for routine foot care.

Title XIX

Under the bill, states would be limited in setting income levels for eligibility to medicaid for which federal match-

ing funds would be available. The income level for medicaid could not be higher than 133 1/3% of the income level for eligibility for the aid-to-families-with-dependent-children program, or, if lower, 133 1/3% of the state per capita income applied to a family with four members (and comparable amounts for families of different sizes.)

Direct Billing

At the option of the states, medicaid recipients who are not also case assistance recipients (those who are medically needy) could receive reimbursement directly for physicians' services on the basis of an itemized bill paid or unpaid.

Birth Control

Each state would be required to develop programs designed to reduce the number of illegitimate births and offer family planning services in all appropriate cases for welfare recipients.

Rural Health Conference Set

● The fifth annual Rural Health Conference, co-sponsored by the Tennessee Medical Association, Tennessee Farm Bureau Federation and the University of Tennessee Agricultural Extension Service, will be held October 25, 1967 at the Memphis Rivermont Holiday Inn.

The one-day affair is expected to attract more than 200 physicians, farm bureau officials, home demonstration club members and extension service personnel.

Among those participating on the program will be Dr. Bond L. Bible, secretary of the American Medical Association's Council on Rural Health who will discuss the AMA's Rural Emergency Care Plan; Mr. Robert Odom, Director of Health Mobilization, Tennessee Department of Public Health who will explain the medical self-help program in Tennessee and Mr. Bernard P. Harrison, Director of the AMA's Legal Department, who will make a presentation entitled "Health Legislation Before the 90th Congress".

Dr. Julian C. Lentz, Jr. of Maryville is chairman of the TMA Rural Health Committee.

Community Health Week October 15-21

● The week of October 15-21 has been selected for the fifth annual national observance of Community Health Week.

State and County Medical Societies across the nation are being called upon to participate in this beneficial public service program.

Primary objectives of Community Health Week are to stimulate greater public awareness and appreciation of the wealth of health facilities and services which are available at the community level and to stress the health progress and medical advances which have been made locally through the joint efforts of all members of the community health team.

All County medical societies in Tennessee are being offered a promotional kit of materials from the AMA for use prior and during the annual observance.

Dr. O. M. McCallum of Henderson, chairman of the TMA Communications and Public Service Committee, has urged each county medical society in our state to take full advantage of this opportunity to inform their patients of medicine's continuing interest in local health affairs.

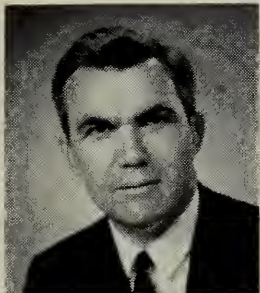
Medical Lab Exams Given

● The Department of Health, Education and Welfare announced that 57 independent clinical laboratories whose directors did not pass recent examinations sponsored by the U.S. Public Health Service had been disqualified as providers of services under Medicare.

The exams were given for those directors who lacked a college degree in a laboratory science specified as one of the requirements for the facility's participating in the medicare program. The examination was given to 450 laboratory directors.

President's Page

Physicians' Fees in Governmental Medical Programs



DR. KRESSENBERG

There has been a gradual change in the structure of physicians' fees during the past thirty years and all of us have welcomed this change. At the beginning of this time it was customary for physicians' fees to vary considerably from one patient to another for the same procedure. This was partly due to the fact that there was a wide variation in the income of patients presenting themselves to the physician for care at that time. The change in this policy has occurred because of the gradual leveling out of patients' incomes so that fewer of our patients fall in the category of either very poor or very rich, most of them falling in a broad group whose income is close to the median income of the entire patient population. In spite of this fact all of us at one time or another charge

patients a reduced fee or no fee when their financial circumstances are such that they cannot afford to pay our usual fee or any fee.

With the advent of government medical programs our "usual and customary" fee has become a matter of much discussion in government circles as well as in our own organized medical legislative and deliberative bodies. There have been a great many attempts to define in very accurate terms what "usual and customary" means. It seems to me very evident that "usual and customary" is a term which can be applied to any individual physician's fee but it is difficult to apply this term to the fees of an entire medical society or to a very large group of doctors.

In Public Law 89-97 (Medicare) Congress specified in the law that physicians were to be paid their usual and customary fee and so far this policy has been working reasonably well. In the Title XIX or Medicaid portion of the law however, there was no such specification of physicians being paid their usual and customary fees. In a number of states which have already implemented the Title XIX program, physicians are being paid their usual and customary fees, while in others the state has developed a fee schedule which they are using in place of the usual and customary method.

Here in Tennessee where the Title XIX program has not been implemented as yet, this problem only arises in conjunction with those state medical programs for which physicians are paid, such as the Vocational Rehabilitation Program and the Crippled Children's Service. Here physicians have always been paid according to fee schedules set up by the state government. It is time for us to act along the lines of our policy statement passed in the House of Delegates last April in which we stated that we would perform all services for the usual and customary. There is no reason for the state or federal government to make second class citizens of those patients who present themselves to us under a government medical program which pays less than the usual and customary fees. The government cannot reasonably expect us to work cheaper for the government or for those patients who are being paid for by the government than we do for our other patients who present themselves to us in our daily practices.

It is our hope that the legislature will implement the Title XIX program in January and that they will see fit in their wisdom to specify in the law that physicians will be paid their usual and customary fees. We are also hopeful that all state medical programs will begin to pay usual and customary fees so that the indigent patients of Tennessee can receive the same medical care as the self-sufficient citizen, and will not feel they are receiving second class care because the state is paying second class fees.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn. 37203

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SEPTEMBER, 1967

EDITORIAL

NAPALM

The physician, as a citizen, must understand the importance of decisions to use all types of weapons in warfare including conventional, atomic and napalm. As a physician it is imperative that he be familiar with the medical consequences of the use of each of these types of weapons. Most physicians have been instructed in the destructive aspects of both conventional and atomic devices but napalm has, for most, been less well understood.

In a recent report by Reich and Sidel¹ the mystery of napalm has been cleared. Since its invention in 1942, this incendiary substance has assumed an increasingly important role in modern warfare. It is named for naphthenate and palmitate, two constituents of the gelling agent used in the gelation of gasoline.

The preparation of napalm is a simple, inexpensive procedure which utilizes abundantly available materials. It can be prepared in the field by adding the gel to vehi-

cle gasoline. The gel is tough, stable, adhesive and can be stored indefinitely. Gel formation enhances the destruction properties of burning gasoline by containing the flame and prolonging the burning time. Like gasoline, napalm produces high concentrations of carbon monoxide.

White phosphorus used in the ignition systems of napalm bombs and land mines, complicates the control of napalm fires. At the time of ignition a TNT charge drives finely divided particles of white phosphorus into the gel; these particles burn spontaneously on contact with oxygen and will re-ignite when fire control agents disperse it. Burning phosphorus also produces a dense white smoke which retards fire fighting and rescue operations.

Napalm casualties are caused primarily by thermal injury and carbon monoxide poisoning. The adhesiveness, prolonged burning time and high burning temperature of napalm favor third-degree burns resulting in severe contractures and deformities in survivors. Nephrotoxicity may be a severe complication and a deep burn from napalm involving 10 per cent of the body may result in renal failure.

Napalm wounds contaminated with white phosphorus may be almost impossible to debride.

The combined effects of wartime conditions and inadequate medical facilities will influence the course and management of such burns. Respiratory embarrassment, shock, fluid loss and sepsis will be high in adults and even higher in children. In addition, carbon monoxide poisoning may also result from such bombing and in Hamburg, during World War II, 70 per cent of the deaths not directly due to trauma were caused by that gas.

Incendiary bombing is potentially as destructive as atomic warfare. Fire storms can be created by planned bombing patterns. The effects of a fire storm, with high velocity winds, smoke, toxic gases and extreme heat, create the conditions for a medical disaster. The saturation bombing of Japanese cities with napalm during the last months of World War II caused many more deaths than the atomic attacks on Hiroshima and Nagasaki. Deaths from burns, carbon monoxide, anoxia and heat

stroke may result from the use of this lethal weapon.

Physicians must be ready to treat victims of such incendiary weapons. As citizens they must understand the terrifying results of any decisions to employ such destructive agents.

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¹ Reich, Peter and Sidel, Victor: *Napalm*. New England J. of Med., 277:86, 1967.

A.B.S.

WHITHER TAX-SUPPORTED MEDICAL CARE?

Government and other agencies in Britain are engaged in much soul searching as to the future in the financing of medical care. This is a topic of much interest to us also, no matter what the differences may be between their and our programs of governmental financing. Britain has been at it long enough—some dozen years—to have developed problems; we are just getting “our feet wet.” A recent number of the *British Medical Journal* contains an interesting article entitled—“Is There an Alternative?—Prospects for Private Health Insurance,” by the Editorial Director of the Institute of Economic Affairs.¹

He sets forth certain basic facts before going on to speculate about alternative answers to providing desirable levels of medical care. (1) “Expenditure on medical care has been rising faster than income in the U.S.A. and elsewhere but not in Britain.” (2) “Citizens are not prepared to pay as much in taxes for services shared with others as they demand for themselves.” (3) “Taxes are regarded as deductions from income, not as payment for services.”

Therefore private and voluntary insurance is having more and more discussion “in Britain as an indispensable method of paying for health services at rising standards because it would introduce additional finances not otherwise available” to meet the many facets of the desired levels of health care.

The British are casting about for means of supplementing the three methods presently financing medical care—i.e. fees, taxation and charges. They believe fees for

some services will be increasingly practicable with rising incomes. It seems they believe taxation or compulsory contributions to the National Health Service (N.H.S.) as a means of increased support is fading away. Furthermore, it appears that the politicians in both parties are facing the need for charges, not only for medicines and appliances, but for consultation and treatment as well. The author states, “The economic dilemma of charges is that if they are low they will not draw in much revenue, and the N.H.S. will not improve very much or will continue to deteriorate; and if they are at or near the market cost they may encourage private practice and insurance.” All recognize that private health insurance would tap funds which would otherwise not contribute to medical care by fees, taxes or charges.

Private health insurance had never become established in Britain, as in our country, before the N.H.S. and much of it was on a different basis, namely, for income during illness. By now some 17 million British citizens have some form of private health insurance of a variety which in one way or another is supplemental to the N.H.S. The writer reviews the pros and cons of several forms of health insurance in vogue in Europe today.

A consideration of the *advantages* of private insurance includes many involving doctor-patient relationships, more satisfying choice of physicians, flexibility in health care arrangements, removal of medical care from politics, and transferring every patient from a “beneficiary” status into a buyer, removing “social divisiveness” where the “few pay for private services and the many receive a free State service.” The *disadvantages* described in the article anticipate higher administrative costs, difficulties in billing and payment, increasing costs exceeding premium income and problems in selling the public.

The writer ends by saying, “If people are prepared to pay more for better food, clothing, furnishings, motoring, holidays, it should be possible to enable them to pay more for better medical care.” He cites a 1965 poll in a population sample (ages 16 to 65) in which 23%, as heads of families, indi-

¹Seldon, Arthur: Is There An Alternative;—Prospects for Private Health Insurance, *Brit. M. J.* 3:166 (July 15) 1967.

IRON DEFICIENCY



Imferon[®]

(iron dextran injection)

There's as much iron . . . 250 mg. . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.



IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

cated they would be glad to match a 5 pound government voucher with an equal amount to buy private health insurance which theoretically would add 45 million pounds to health care.

To be sure the British National Health Service has a different base than our medical socialism to date. Nevertheless, in spite of this it is not amiss to recognize its problems and experiences as we evaluate Medicare and its provision for the needy and self-sufficient alike, and as we prepare for Medicaid and other similar developments, shadowy as yet, on the horizon.

R.H.K.

Special Communication

Changes in Public Law 569

The Dependents' Medical Care Program has recently undergone changes of two types and with two different effective dates.

EFFECTIVE 10-1-66: The first change in benefits was for those dependents of active duty servicemen who were already covered and pertained only to outpatient care. As of October 1, 1966, outpatient benefits were expanded to include virtually all diagnostic and therapeutic services rendered in outpatient facilities of a hospital, in a physician's office, at home and from a variety of civilian purveyors of care or vendors, and included prescription drugs and insulin.

In general, dependents are required to pay the first \$50 per person, or collectively \$100 per family, of *outpatient* charges during a single fiscal year (July 1-June 30) and 20% thereafter. In satisfying the deductible, all authorized outpatient care may be included, such as physician visits, ambulance service, drugs, etc.

EFFECTIVE 1-1-67: NAME CHANGES—The Dependents' Medical Care Program (previously referred to as Medicare, Dependicare, and the DMA Program) is now called the *Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)*. The Office for Dependents' Medical Care (ODMC) is the Office for Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS).

NEW BENEFICIARIES: Retired members, their dependents, and dependents of

deceased servicemen who were on active duty or retired status at the time of death are now covered under the Program and will be entitled to the "regular" benefits available to dependents of active duty servicemen effective January 1, 1967. However, the payment required from these new beneficiaries is different than the amounts due from dependents of servicemen in an active duty status. (See paragraph on "patient's liability").

BENEFIT CHANGES: Virtually all acute and chronic conditions requiring diagnosis and/or definitive treatment will be covered on an in-patient or out-patient basis, including a variety of related supplies and services by certain sources not covered at government expense heretofore.

With regard to in-hospital admissions, the following will be covered in full when "medically necessary" and so certified by the attending physician or dentist:

A. Care in a private room

B. Services of a private duty nurse

BILLING AND REIMBURSEMENT: The Tennessee Hospital Service Association may accept and pay only those claims reflecting authorized services provided by a hospital to an in-patient, and related out-patient services rendered within 30 days before and/or 120 days after hospitalization for a bodily injury or surgery. Out-patient services directly related to the same condition of pregnancy are payable through Tennessee Hospital Service Association (Fiscal Agent) even though the dependent is not ultimately admitted as an in-patient for delivery or complications of pregnancy.

It has been announced that the Defense Department has decided to abandon the maximum physician fee schedule under the program for civilian care of military dependents and replace it with usual and customary physicians' fees, as in the medicare program.

All claims are to be submitted to the Fiscal Agent responsible for paying physician's claims, which is the Tennessee Hospital Service Association, Blue Cross Building, Chattanooga, Tennessee.

IDENTIFICATION: To establish eligibility for authorized care and services from certain sources, the patient must present the following forms:

<i>Category of Beneficiary</i>	<i>Identification Form(s)</i>
Retired Members	Form PHS-1866-3 (Retired)
U. S. Public Health Service	(Gray Color) DD Form 2 (Retired) (Gray in Color)
All other services:	
Dependents of	DD Form 1173 (Buff Color).
Active Duty, Retired, Deceased	Normally such a card is not issued to dependent children under 10 years of age.
Members of a Uniformed Service	

In an emergency, satisfactory collateral identification may be accepted in lieu of DD Form 1173 or DD Form 2 (Ret.) (Gray).

Hospitalization for chronic conditions and for nervous, mental and emotional disorders will be provided for up to 45 days of care. (This care has previously been limited to 21 days for an acute emergency.)

If care beyond 45 days for these conditions will be required, it is the sponsor's responsibility to obtain approval for further care.

PATIENT'S LIABILITY: The payment normally required of a patient is as follows:

A. In-patient Services	The first \$25 of the hospital's charges or \$1.75 a day, whichever is greater. Plus all charges for non-covered services, and not medically necessary, the difference between the private room rate and the average charge for semi-private accommodations.
Dependents of active duty members	
Retired members and their dependents and the dependents of deceased members.	25% of the hospital's charges and fees of professional personnel for medical care furnished on an in-patient basis. (Same as above.)

IN MEMORIAM

Colbert, William Campbell, Memphis. Died 23, July 1967, Age 74. Graduate of University of Tennessee College of Medicine, 1914. Member of Memphis and Shelby County Medical Society.

Chaffee, Clarence Alva, Memphis. Died 29, May, 1967, Age 87. Graduate of Memphis Medical College, 1905. Member of Memphis and Shelby County Medical Society.

Hall, James S., Clinton. Died 11, July, 1967, Age 72. Graduate of University of Tennessee College of Medicine, 1920. Member of Roane-Anderson County Medical Society.

Peterson, Earl, Erwin. Died 12, July, 1967, Age

43. Graduate of University of Tennessee College of Medicine, 1946. Member of Washington-Carter-Unicoi County Medical Society.

Pentecost, Ben Lyal, Memphis. Died 13, July, 1967, Age 55. Graduate of University of Tennessee College of Medicine, 1935. Member of Memphis and Shelby County Medical Society.

Schultz, Elmer Charles, Memphis. Died 16, July, 1967, Age 54. Graduate of University of Michigan Medical School, 1939. Member of Memphis and Shelby County Medical Society.

Morford, Theodore, Nashville. Died 12, July, 1967, Age 69. Graduate of Vanderbilt University School of Medicine, 1924. Member of Nashville Academy of Medicine.

Tipton, James S., Friendsville. Died 5, July, 1967, Age 96. Graduate of Kentucky School of Medicine, 1894. Member of Blount County Medical Society.

Key, Robert Edwin, Carthage. Died 9, August, 1967, Age 87. Graduate of University of Nashville Medical Department, 1904. Member of Smith County Medical Society.

Rucks, W. L., Memphis. Died 5, August, 1967, Age 77. Graduate of University of Tennessee College of Medicine, 1913. Member of Memphis and Shelby County Medical Society.

Grizzard, R. W., Nashville. Died 7, August, 1967, Age 87. Graduate of Vanderbilt University School of Medicine, 1905. Member of Nashville Academy of Medicine.

Hawkins, Alvin, Old Hickory. Died 2, August, 1967, Age 69. Graduate of University of Tennessee College of Medicine, 1928. Member of Nashville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

West Tennessee Consolidated Medical Assembly

The members of the West Tennessee Medical Assembly met at the New Southern Hotel in Jackson on June 6th. The program "Perinatal Hypoxia and Resuscitation of the Newborn" was presented by Doctors Don Lewis, Robert Hill and Walton Harrison.

Knoxville Academy of Medicine

Dr. Robert L. Summitt, department of pediatrics, University of Tennessee College of Medicine, Memphis, was guest speaker at the meeting of the Knoxville Academy of Medicine on August 8th. Dr. Summitt's presentation was entitled, "Cytogenetics for the Clinician".

Memphis-Shelby County Medical Society

The Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on August 1st. The program entitled, "Malpractice" was presented by Dr. James A. Kirtley, associate clinical professor of surgery, Vanderbilt University School of Medicine, Nashville, and Mr. Dunlap Cannon, Attorney, Memphis.

Following the presentation, a business session of the House of Delegates was held at 8:00 P.M.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The House Ways and Means Committee approved a social security bill including some medicare and medicaid changes sought by the medical profession and excluded others opposed by the American Medical Association. The committee also discarded an Administration proposal to extend medicare coverage to disabled workers under age 65, as well as an Administration-opposed proposal that would have put federal government workers under medicare. The actions were part of a general scaling down of the increases in social security benefits sought by President Johnson. A committee bill (H.R. 12080) includes these changes in the present law:

- Allow medicare patients, or doctors, to collect from the government on the basis of an itemized bill. Present law requires a bill receipted as having been paid to the doctor if the doctor doesn't accept an assignment. (AMA-supported)

- Authorize states to allow physicians to bill medicaid patients directly if they are not also cash assistance recipients. (AMA-supported)

- Eliminate the requirement for certification by a doctor before admission of a medicare patient to a hospital (AMA-supported)

- Shift coverage on medicare outpatient diagnostic services provided by hospitals from Plan A to Plan B. (AMA-supported)

- Put limits on federal contributions to states for medicaid programs. Beginning July 1, 1968, the federal ceiling on eligibility would be 150 percent of the annual income set by a state for welfare eligibility. It would drop to 140 percent on January 1, 1969, and to 133 $\frac{1}{3}$ percent January 1, 1970.

- Require states to give birth control information to welfare patients who request it.

In addition to opposing extension of medicare to disabled workers under age 65, the AMA opposed creation of a new Plan C under medicare and a provision for chiropractor's services—both of which were rejected by the committee.

The House group slashed back the President's proposal for a 15 percent minimum monthly social security increase in cash benefits to 12.5 percent. The administration proposal for an increase in social security taxes also was scaled down to 4.4 percent, on the employer and on the employee, of the first \$7,600 in wages starting in 1968. The taxable wage base now is \$6,600, and the tax rate is 4.4 percent. The Administration had asked that the base be increased to \$7,800 next year, and in later stages, to \$10,800.

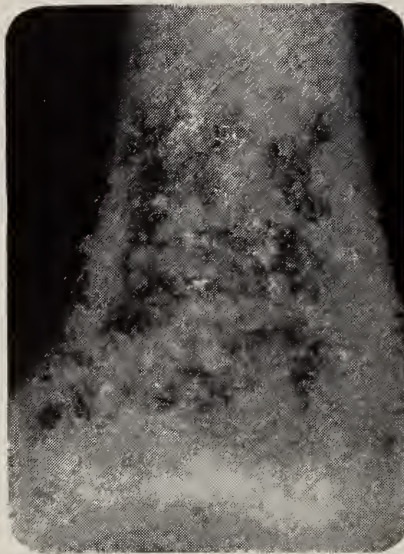


The American Medical Association and the Kansas City (Mo.) Community Blood Bank asked Congress to exempt community blood banks from the antitrust laws.

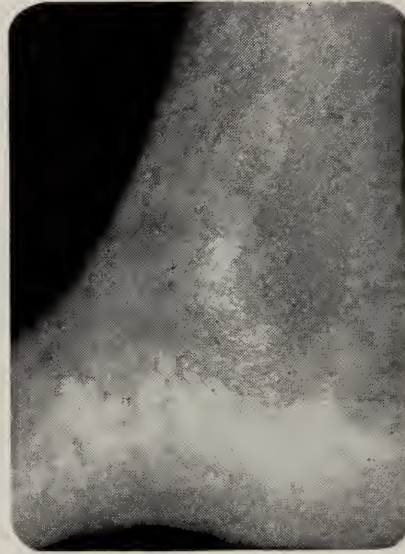
Representatives of the groups testified at a senate judiciary subcommittee hearing in support of S.1945 which would amend the antitrust laws to provide that a nonprofit blood or tissue bank, or hospital, or physician who refuses or who joins together with others in refusing to obtain or to accept delivery of blood, blood plasma, other tissue or organs from any other blood or tissue bank would not be in restraint of trade. The interstate shipment of blood, blood plasma, other tissue or organs also would not be deemed to constitute trade or commerce in commodities.

The legislation was introduced after the Federal Trade Commission ruled that a group of Kansas City pathologists, hospitals and blood bank officials had combined illegally to restrain commerce in human whole blood. An appeal against the ruling is

Eczema of many years... controlled in two weeks



Before treatment



*After treatment —
with ARISTOCORT Topical
Ointment 0.1% for two weeks*

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side

effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive non-permeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyoderma will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

PHOTOGRAPHS COURTESY OF M. M. NIEMAN, M.D.

Aristocort®

Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide

Also available in foam form.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

pending in the Federal Eighth Circuit Court of Appeals in St. Louis, Missouri.

Dr. Robert S. Mosser, President of the Kansas City Blood Bank, said it was inconceivable that groups of physicians may not have the right to discuss shortcomings of medical practice, including the use of blood and its derivatives.

Dr. Frank C. Coleman, Tampa, Florida, pathologist, presented the views of the AMA: "Because serious health hazards may arise through transfusion by virtue of the medical condition of the donor, the care necessary in the selection of blood donors by blood banking facilities cannot be over-emphasized. Serious consequences may arise unless the blood is properly drawn, processed, stored, and distributed. And it is imperative that these procedures be performed under high standards, under the guidance and control of proper medical supervision." Dr. Coleman pointed out that the AMA in 1963 adopted a statement "to the effect that the transfusion of blood constitutes the transplant of human tissue, and that physicians responsible for transfusions render a medical service to the patient."

"The House of Delegates stated that the selection of the donor, the drawing of the blood, its processing and storage, the delivery, the typing and crossmatching, and the administration of the transfusion and the evaluation of its effects, were functions intimately involving medical judgment and requiring medical supervision. The American Medical Association believes that the health interests of the community are best served when the supply of blood is maintained on a replacement basis. We feel that the patient, the donor, and the public benefit when blood is replaced by the patient, his family, or his friends in the various organizations of which he is a member.

"Since the consequences of any abuses can be tragic, it is our opinion that the physician and hospital must have available to them every means of insuring the safety of the patient."



The American Medical Association and the Missouri State Medical Association argued against an Internal Revenue Service proposal to tax the advertising revenues of publications of non-profit associations.

Representatives of other affected, non-medical organizations also opposed the proposed tax at an IRS hearing.

Bernard D. Hirsh, director of the AMA's Law Division, pointed out that the pertinent law on unrelated income had been on the books for 17 years without any such tax being proposed by the government. "The proposed regulations go beyond the law, first in arbitrarily classifying all advertising contained in trade and professional journals as unrelated, and secondly, in treating income derived from this source as if it were income from a business capable of separate existence," Hirsh said.

Dr. Hector W. Benoit, Jr., MSMA President, noted that one of the stated purposes of the proposal was to eliminate alleged unfair competition in advertising between non-profit association journals and profit magazines. "If you have the stomach to read many of these advertisements (in Missouri Medicine), you will find they are directed purely to a professional audience and would be unlikely to enhance the public appeal to such lay publications as Atlantic Monthly, Look, etc. . . ." He also noted that medical societies furnish many voluntary services for their latest information on medical advances. "Without the help of the advertising income from these publications and the income of exhibitors at these medical meetings, many of these sources of educational information would be severely restricted, even indeed in many instances, eliminated entirely."

MEDICAL NEWS IN TENNESSEE

University of Tennessee College of Medicine

The continuing education program at the University of Tennessee Medical Units is among the first such programs in the nation to receive accreditation from the American Medical Association. Chancellor Homer F. Marsh at the Medical Units has received notification from the AMA's Council on Medical Education that the Medical Units' courses, as applying to the College of Medicine, will be officially designated as courses



Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.

Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.

Adverse Reactions (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").

Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

ORAL **PEN•VEE® K**

(potassium phenoxymethyl penicillin)



offered by an accredited institution. The Medical Units were included in approval of 14 such programs conducted at medical colleges throughout the country.



Promotions in rank for nine faculty members of the College of Basic Medical Sciences at the Medical Units have been announced by Dr. Roland H. Alden, dean of the college. They are: Dr. Richard C. Moon and Dr. Clark C. Grosvenor, department of physiology, from associate professor to professor; Dr. Maurice P. Drake and Dr. Lorraine M. Kraus of the department of biochemistry, and Dr. Robert L. W. Averill and Dr. John M. Ginski of the department of physiology, from assistant professor to associate professor; Dr. James S. Bell of the department of pathology and Dr. Arthur A. Manthey of the department of physiology, from instructor to assistant professor; and Dr. Jack G. Richmond of pathology was promoted from assistant to assistant professor.



A member of the medical faculty has been appointed to the nation's major scientific advisory group. Dr. Roger T. Sherman, professor of surgery, was named to the Committee on Trauma of the National Research Council of the National Academy of Sciences. The Council advises government, university and private foundations in a wide field of scientific research including medicine. The Committee to which Dr. Sherman was named works principally with the Armed Forces.



Dr. E. William Rosenberg has become the first full-time chairman of the Division of Dermatology. Dr. Rosenberg, who assumed the position on July 1st, has been acting as professor and chief of the division on a clinical part-time basis.



The recently named winner of the Superior Scholastic Achievement Award for 1967 from the College of Medicine, is David B. Melvin of Germantown. Mr. Melvin is a senior at the college and is president of Phi Rho Sigma Medical Fraternity and a member of Alpha Omega Alpha Medical Honor Society.

GRANTS—Dr. John W. Runyan, chief of the section on endocrinology, Department of Medicine, is recipient of a \$29,838 grant from the National Foundation-March of Dimes to conduct research on metabolic and hormonal relationships involved in the process of meiosis. Dr. Runyan and his associates in the project—Dr. Dorothy Williams and Dr. Ainsworth Hagen—hope to find new clues to birth defects by mapping chromosome patterns and establishing characteristics which might have a bearing on congenital defects.

Dr. William P. Purcell, professor of medical chemistry, is the recipient of a research grant for \$49,994 from the U. S. Army Medical Research and Development Command. Dr. Purcell's research, first funded in 1965, is directed toward finding more effective drugs against malarial infections.

Dr. Purcell and Dr. James G. Beasley, associate professor of medicinal chemistry, have been awarded a two-year \$45,000 grant from the National Science Foundation as continued support of their exploratory work on the molecular structure, physicochemical characterizations and enzymodynamic properties of cholinesterase inhibitors.

The Department of Psychiatry has been awarded a \$21,600 USPHS grant for support of a program to strengthen the teaching of the behavioral sciences. The program will tie in with the audio-visual resources financed by a \$4,000 grant from the Network for Continuing Medical Education which is devoted exclusively to television, film and tape lectures.

Vanderbilt University School of Medicine

A federal grant of \$849,360 has been awarded the School of Medicine's department of surgery for a seven-year training program in surgical research and basic sciences. The program, which officially went into effect July 1, will provide training and financial assistance for seven students over a seven-year period. The grant for the first year is \$61,360 and permits the selection of two trainees. Dr. Charles Van Way is the first candidate to be selected for the program, which is under the directorship of Dr. H. William Scott, Jr., professor and chair-

man of the department of surgery. The grant was awarded through the National Institute of General Medical Sciences, a division of the U. S. Public Health Service.



A Vanderbilt scientist has been named to the lifetime research post of Career Investigator by the American Heart Association. Dr. Earl W. Sutherland, Jr., professor of physiology, is the 13th distinguished scientist to hold a Career Investigatorship. The award was pioneered by the AHA in 1951. Career Investigators are scientists of outstanding ability and achievement who receive support for the duration of their professional lives. The award enables the recipient to work without interruption and with maximal freedom on research problems of his own choosing.



The School of Nursing has been awarded \$56,577 by the USPHS for the first year of a five-year project to revise the curriculum and enrich instruction. Dean Luther Christman of the Nursing School states such revision will attempt to close the existing time gap between the release of new knowledge, and the application of it by nurses.



Dr. Bass, Chairman of the Department of Pharmacology, has joined with 15 other American medical men to lead the interested lay reader through a basic and revealing description of our modern medicines—what these drugs can and cannot accomplish for the patient, how they can help or harm—in a newly published book, "Take as Directed."



Dr. John Lewis Simmons, former chairman of the Division of Urology at the University of North Carolina, has been appointed Associate Professor of Urology, Department of Surgery.

Dr. John E. Chapman, Associate Dean at the University of Kansas School of Medicine has been appointed as Associate Dean for Medical Education. He will also hold appointments as Associate Professor of Pharmacology and Director of the Continuing Education Division of the Mid-South Regional Medical Program.

State of Tennessee
DEPARTMENT OF PUBLIC HEALTH
Nashville 37219

August 1, 1967

Special Letter

TO: Licensed Physicians in Tennessee
SUBJECT: Biopsy Service For The Early Diagnosis Of Cancer

Dear Doctor:

Attached is a list of the pathologists for the fiscal year 1967-68 who are participating in the biopsy service for the early diagnosis of cancer. This service is limited to the examination of specimens from medically indigent patients.

1. Containers for sending specimens may be obtained on request from:

Division of Laboratories, Tennessee Department of Public Health, Cordell Hull Building, Nashville, Tennessee 37219

2. Only biopsy specimens will be examined. Specimens from the breast are an exception. No other post-operative specimen will be examined.

3. Place the biopsy specimen in the fluid in the container. *Do not pour out the fluid.*

4. Two copies of Form No. 570 are in the container; fill out completely both copies and sign them. The pathologists have been requested not to accept specimens when the form is not completely filled out in duplicate and signed.

5. Place the completed forms around the inner container.

6. Make sure the lids are on tight.

7. Address the yellow mailing label to the pathologist of your choice, place on the label your return address, attach the label, and mail.

8. DO NOT MAIL the specimens to the State Laboratory.

If we can be of assistance, please let us know.

Sincerely yours,

R. H. HUTCHESON, M.D.
Commissioner

**PATHOLOGISTS PARTICIPATING IN THE
BIOPSY SERVICE FOR THE EARLY
DIAGNOSIS OF CANCER 1967-68**

ADAMS, John W., Jr., M.D. 261 Wiehl Street Chattanooga, 37403	ESSMAN, Richard A., M.D. Methodist Hospital Memphis, 38104	MIDDLETON, A. L., Jr., M.D. General Hospital Jackson, 38303
AUERBACH, Stewart H., M.D. Baroness Erlanger Hospital Chattanooga, 37403	FARROW, C. C., M.D. 257 South Bellevue Memphis, 38104	MOORE, Hugh C., M.D. Methodist Hospital Memphis, 38104
BALE, George F., M.D. Baptist Memorial Hospital Memphis, 38103	FRANCISCO, J. T., M.D. University of Tennessee P. O. Box 153 Memphis, 38105	MOSS, T. C., M.D. 257 South Bellevue Memphis, 38116
BEALS, Daniel F., M.D. St. Mary's Hospital Knoxville, 37917	FRAZIER, Horace M., M.D. Meharry Medical College Nashville, 37208	MUIRHEAD, E. Eric, M.D. Baptist Memorial Hospital Memphis, 38103
BELLOMY, Bruce B., M.D. Ft. Sanders Presby. Hospital Knoxville, 37916	GOSS, Martha F., M.D. St. Joseph Hospital Memphis, 38101	NELSON, Bill M., M.D. ORINS Medical Div. Box 117 Oak Ridge, 37831
BROWNE, Harry G., M.D. 201 Twenty-First & Hayes Bldg. Nashville, 37203	GOTWALD, David, M.D. St. Thomas Hospital Nashville, 37203	PHILLIPS, J. Douglas, M.D. 1265 Union Avenue Memphis, 38104
BURTON, William D. Methodist Hospital Memphis, 38104	GRAHAM, L. S., M.D. 2010 Church Street Nashville, 37203	PHYTHYON, James M., M.D. 2010 Church Street Nashville, 37203
CARABIA, Alex G., M.D. Oak Ridge Hospital Oak Ridge, 37831	HARRISON, William, Jr., M.D. H. V. C. Hospital Kingsport, 37660	POTTER, Thomas P., Jr., M.D. Memorial Hospital, Inc. Johnson City, 37601
CRAWFORD, Alvin S., M.D. Bristol Memorial Hospital Bristol, 37622	HEPLER, Thomas K., M.D. Memorial Hospital Clarksville, 37040	PRIETO, L. C., Jr., M.D. St. Joseph Hospital Memphis, 38128
DELVAUX, Thomas C., M.D. St. Thomas Hospital Nashville, 37203	JONES, Chester, M.D. General Hospital Jackson, 38303	SHAPIRO, John L., M.D. Vanderbilt Hospital Nashville, 37203
*DIGGS, Lemuel W., M.D. 42 North Dunlap Memphis, 38103	JONES, Francis S., M.D. U. T. Memorial Hospital Knoxville, 37919	SPRUNT, Douglas H., M.D. Institute of Pathology University of Tennessee Memphis, 38105
DUCKWORTH, John K., M.D. 1265 Union Avenue Memphis, 38104	KINTNER, Elgin P. M.D. Box 89 Maryville, 37803	SULLIVAN, Earl J., M.D. Memorial Hospital Johnson City, 37601
ELLIOTT, William E., M.D. Blount Memorial Hospital Maryville, 37801	LEFFLER, R. J., M.D. East Tenn. Baptist Hospital Knoxville, 37920	TRUMBULL, Merlin L., M.D. Baptist Memorial Hospital Memphis, 38103
ELROD, Bruce A., M.D. P. O. Box 3058, Highland Park Sta. Chattanooga, 37403	McMURRY, Searle, M.D. Ft. Sanders Presby. Hosp. Knoxville, 37916	WALKER, Richard H., M.D. Institute of Pathology University of Tennessee Memphis, 38105
ERICKSON, Cyrus C., M.D. Institute of Pathology University of Tennessee Memphis, 38104	MASHBURN, J. D., M.D. 1265 Union Avenue Memphis, 38104	WILSON, Stephen G., Jr., M.D. St. Mary's Hospital Knoxville, 37917
	MAYFIELD, George R., M.D. Maury County Hospital Columbia, 38401	WOMACK, Frank C., M.D. 2010 Church Street Nashville, 37203

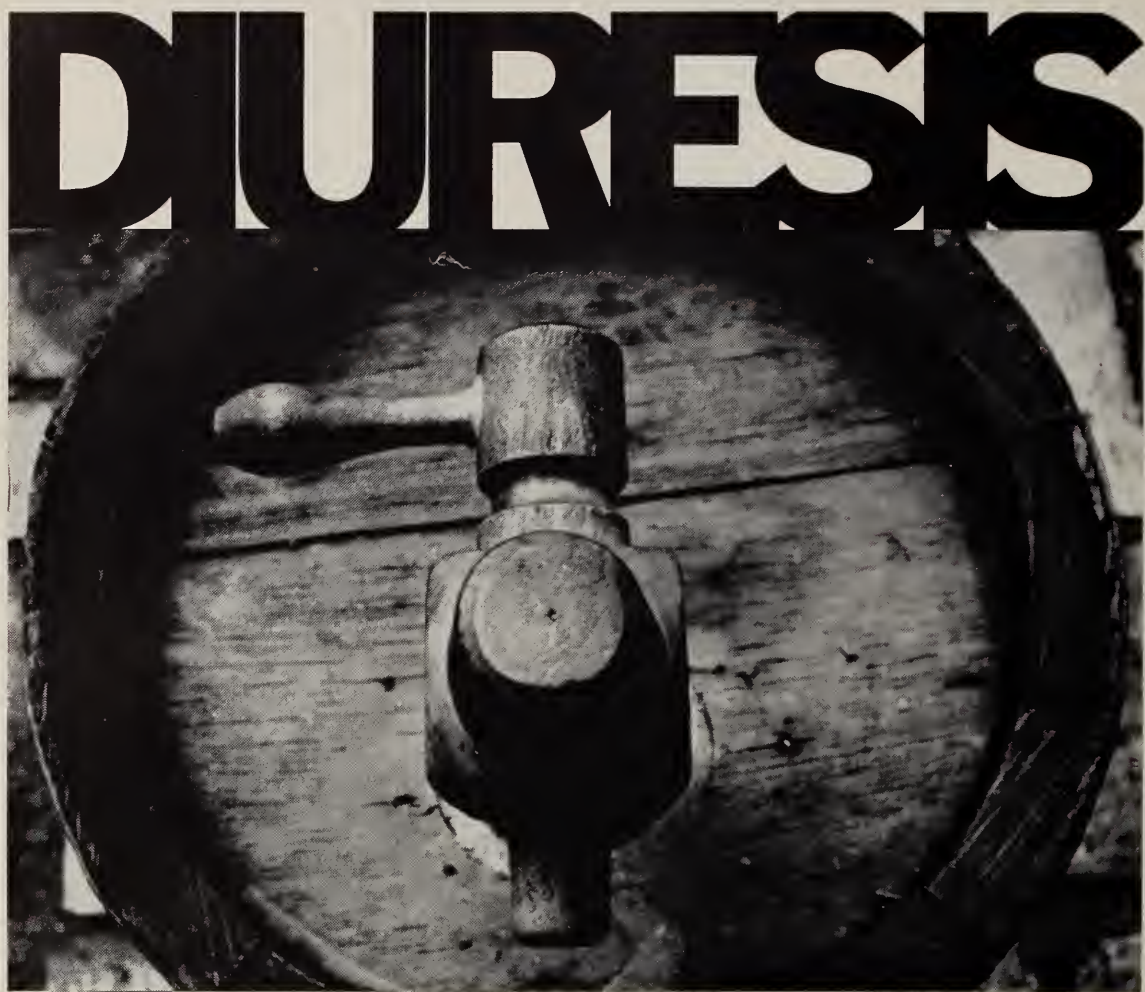
* Blood specimens only.

PERSONAL NEWS

Dr. Robert M. Miles, Memphis, professor of surgery at the Medical Units and director of surgical service at Baptist Hospital, has been elected president of the alumni association of the College of Medicine. Dr. Miles will succeed Dr. Charles Sienknecht of Knoxville, whose term expires in February, 1968.

Dr. J. J. Range, Johnson City, was guest speaker at a recent meeting of the Kiwanis Club in Jonesboro.

Dr. Frank Wilson has become an associate of **Dr. W. H. Wall, Jr.** and **Dr. Robert C. Koehn, Jr.** in the practice of obstetrics and gynecology in Clarksville. Dr. Wilson, a native of Clarksville, graduated from the U. T. College of Medicine in 1961, served his internship at Baptist Memorial Hospital in Memphis in 1961-62 and then served two years in the Navy working in obstetrics and



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Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"¹ established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in 1/2 the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell² has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice* 1966-1967, p. 97, 1966.

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gynecology. He had three years specialty training at Baptist Memorial Hospital, 1964-67.

Dr. Robert K. Rhamy, Nashville urologist, was a volunteer aboard the floating medical center S. S. Hope on its teaching-treatment mission to Cartagena, Colombia.

Dr. Earl P. Bowerman received the Memphis Hospital Council's Distinguished Service Award for 1967 at the West Tennessee Tuberculosis Hospital. The Council selected Dr. Bowerman because of "personal contributions" concerning the treatment of tuberculosis and chest diseases, and in the "promotion of hospital affairs".

Dr. James Stephen Brown has been appointed superintendent of the West Tennessee Hospital and School for the Retarded at Arlington. The Memphis pediatrician's appointment became effective September 1, a year before the 638-bed, \$11 million facility is expected to be completed.

Dr. Kent Kyger has announced his association with the Middle Tennessee Psychiatric Clinic of Nashville for the practice of child psychiatry.

Dr. John Louis Sonner, Sevierville, has been elected to membership in the American Academy of General Practice.

Dr. Sam E. Stephenson, Jr., has left Nashville and the Vanderbilt University School of Medicine, to become Professor of Surgery at the University of Florida School of Medicine and Chairman of the Department of Surgery at the Duval Medical Center in Jacksonville, Florida.

Dr. Gene H. Stollerman, chairman of the department of medicine, U. T., Memphis, has been elected Second Vice President of the American Rheumatism Association. He was elected to the position at the annual meeting of the Association held recently in New York City.

Dr. Robert M. Ruch, assistant professor of obstetrics and gynecology at the University of Tennessee, was guest speaker at a luncheon meeting of the Memphis Kiwanis Club on July 17th.

Following a two-year tour of duty in the U. S. Army Medical Corps, **Dr. William Nathan Richardson** has become associated with the South Pittsburg Municipal Hospital, effective July 10th. Dr. Richardson received his M.D. degree from the University of Tennessee in Memphis, 1963, and interned at City of Memphis Hospital during 1964.

Dr. Robert C. Coddington, former instructor in orthopedic surgery at Vanderbilt University Hospital, Nashville, has recently joined the orthopedic group of Drs. John J. Killeffer, Ernest C. Linberger and Nicholas Forlidas in Chattanooga.

Dr. Robert G. Kiger, Nashville, has joined Drs. Crawford W. Adams and Harry L. Page in the practice of cardiology.

Dr. Thomas E. Simpkins Jr. has opened an office in Nashville for practice in ear, nose and throat.

Dr. D. R. W. Shupe has opened his office for the practice of psychiatry in Madison.

ANNOUNCEMENTS

Calendar of Meetings, 1967

State

Oct. 2-3	Tennessee Valley Medical Assembly, Chattanooga
Nov. 1-3	Tennessee Academy of General Practice, 19th Annual Scientific Assembly and Congress of Delegates, Gatlinburg Auditorium, Gatlinburg
Nov. 16	Middle Tennessee Medical Association

National

Sept. 29-Oct. 3	American Society of Anesthesiologists, Las Vegas, Nevada
Oct. 1-4	Neurosurgical Society of America, The Biltmore, New York
Oct. 2-6	American College of Surgeons (Annual) Conrad Hilton, Chicago
Oct. 5-7	Association of American Physicians and Surgeons, Sheraton-Lincoln, Houston
Oct. 21-26	American Academy of Pediatrics, Washington Hilton Hotel, Washington, D. C.
Oct. 22-23	American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Fla.
Oct. 25-28	Congress of Neurological Surgeons, San Francisco Hilton Hotel, San Francisco
Oct. 27-30	Association of American Medical Colleges, New York Hilton, New York
Oct. 29	American Association of Ophthalmology, Palmer House, Chicago
Oct. 29-Nov. 1	American College of Gastroenterology, Biltmore Hotel, Los Angeles
Oct. 29-Nov. 3	American Academy of Ophthalmology & Otolaryngology, Palmer House, Chicago
Nov. 5-8	American Society of Plastic and Reconstructive Surgeons, Waldorf-Astoria, New York
Nov. 9-11	Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas
Nov. 13-16	Southern Medical Association, Miami Beach, Florida
Nov. 16-18	Western Surgical Association, Ambassador Hotel, Los Angeles
Nov. 25-26	American College of Chest Physicians (Interim Clinical Meeting) Houston, Texas

Nov. 26-29	American Medical Association (Clinical Convention) Houston
Dec. 2-7	American Academy of Dermatology, Palmer House, Chicago
Dec. 4-6	Southern Surgical Association, The Homestead, Hot Springs, Va.

Cardiac Nursing Course Baptist Hospital—Nashville

Tennessee registered nurses are invited to participate in the third Cardiac Nursing Course to be held October 30 through November 17, 1967 at Baptist Hospital in Nashville, Tennessee.

The four-week comprehensive course includes three weeks of didactic lectures and classroom sessions followed by one week of clinical experience in a Coronary Care Unit. Sponsors of the Course will be: Baptist Hospital, the Heart Disease Control Program of the Tennessee Department of Public Health, the Middle Tennessee Heart Association and the Department of Medicine, Vanderbilt University.

Enrollment will be limited to thirty (30) nurses. Please address all inquiries to: Director, Cardiac Nursing Program, Baptist Hospital, Inc., 2000 Church Street, Nashville, Tennessee 37203.

AMA Volunteer Physician for Viet Nam

AMA Volunteer Physicians for Viet Nam is a program for supplying medical care to the civilian population of South Viet Nam through the volunteer services of U. S. physicians. It is administered by the American Medical Association and financed by the United States Agency for International Development.

Physicians sent to South Viet Nam under the program serve a 60-day tour of duty at one of 16 provincial civilian hospitals. The volunteer receives only his transportation and an expense allowance of \$10 a day; otherwise his services are entirely unpaid. At the hospitals, the volunteers will work with teams of military physicians and corpsmen.

Twenty-four to 32 physicians are needed every month to keep hospital staffs at full strength. Most needed are general practitioners, internists, general surgeons and orthopedic surgeons. As of June-July, 1966, the greatest demand is for general and orthopedic surgeons to treat war wounded civilians. Small numbers of specialists in the fields of chest diseases, ophthalmology, otolaryngology, radiology and psychiatry are needed from time to time. Other specialists cannot be used at present but inquiries are invited in anticipation of future demands. Because of conditions in Viet Nam only male physicians are accepted. Information about the program may be obtained by contacting: AMA Volunteer Physicians for Viet Nam, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, 60610.

Eleventh Annual Fellowship Program Announced by Wyeth Laboratories

Applications for two-year Wyeth Pediatric Fellowships are now available for residencies beginning July 1, 1968. All applications must be in the hands of the Selection Committee by December 1, 1967. Sponsored by the Wyeth Fund for Postgraduate Medical Education, each of these fellowships provides \$4,800 over two years toward the advanced training required for board certification in pediatrics. Wyeth's monthly payments, made directly to recipients, are in addition to the usual stipends paid to residents by the institutions in which they train.

Eligible to apply are interns, physicians who have recently completed an internship, research Fellows, or physicians completing their tour of duty with the Armed Services or the U. S. Public Health Service. Applicants must be citizens of the U. S. or Canada. Those who have already started Pediatric Residency training are not eligible. Each Fellow may choose the hospital in which he will train provided that it is accredited by the Residency Review Committee which represents the American Board of Pediatrics, the American Academy of Pediatrics, and the Council on Medical Education and Hospitals of the AMA. Application should be made to: Philip S. Barba, M.D., Chairman of the Selection Committee, 120 Erdenheim Road, Philadelphia, Pennsylvania, 19118.

Annual General Practice Review of Medical College of Georgia

The annual General Practice Review at the Medical College of Georgia is being presented in Augusta for practicing physicians on November 6-10, 1967. In this five-day program emphasis will be placed on the recognition and proper management of conditions frequently encountered by physicians in family practice. Instruction will utilize multiple formats—lectures, panel discussions, special audio-visual techniques, and question and answer periods. Registration fee for the full course is \$80, or \$20 per day. For further information contact: Division of Continuing Education, Medical College of Georgia, Augusta, Georgia, 30902.

Interim Clinical Meeting American College of Chest Physicians

Plan now to attend the American College of Chest Physicians, Interim Clinical Meeting, to be held at the Warwick Hotel, Houston, Texas, November 25-26, 1967, just prior to the AMA Clinical Meeting, November 26-29. This will be a two-day scientific program with round table discussions and fireside conferences. A highlight of the program will be a panel discussion held at the NASA Manned Spacecraft Center.

For a copy of the program and other details

please write to the Executive Office of the American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois, 60611.

Tennessee Internists Schedule Scientific Meeting

The American College of Physicians will hold a regional meeting for specialists in internal medicine in Tennessee October 6-7. The meeting is scheduled for the Rivermont Holiday Inn, Memphis. The Tennessee meeting is one of some 35 scientific seminars sponsored each year by the ACP during the academic year. Held throughout the United States and in Canada, the meetings help keep the College's 13,600 members abreast of developments in the basic sciences and clinical medicine.

Special guests will include H. Marvin Pollard, M.D., Ann Arbor, Michigan, ACP President-Elect and Professor of Internal Medicine and Head of the Section of Gastroenterology at the University of Michigan Medical School.

Hall S. Tackett, M.D., Memphis, ACP Governor for Tennessee and Clinical Professor of Medicine, University of Tennessee School of Medicine, is in general charge of the meeting.

Cooperative Cancer Clinics in Tennessee 1967-1968

BRISTOL

Bristol Memorial Hospital Tumor Clinic
Time: **Friday**
Hour: 1:00 p.m.

CHATTANOOGA

Chattanooga Tumor Clinic
Erlanger Hospital
*Time: **Tuesday** **Friday**
Hour: 12:30 p.m. 12:30 p.m.
*Patients are seen by appointment only.

JOHNSON CITY

Tri-County Cancer Clinic
Health Center, 102 West Myrtle
Time: **Thursday**
Hour: 1:00 p.m.

KNOXVILLE

East Tennessee Tumor Clinic
University of Tennessee Memorial Hospital
Time and Hours:

MONDAY

7:00 a.m.—E.N.T. Clinic
11:00 a.m.—G.U. Clinic

WEDNESDAY

11:00 a.m.—Chest Clinic
11:00 a.m.—Plastic Surgery Clinic

THURSDAY

8:00 a.m.—Proctology Clinic
8:00 a.m.—Dental Clinic

8:00 a.m.—Surgery Clinic
8:00 a.m.—Hematology Clinic
8:00 a.m.—Dermatology Clinic
11:00 a.m.—Gynecology Clinic

FRIDAY

11:00 a.m.—G.U. Clinic

KINGSPORT

Holston Valley Community Hospital Cancer Clinic
Time: **Friday**
Hour: 12:30 p.m.

MEMPHIS

West Tennessee Cancer Clinic
21 North Dunlap
*Time and Hours:
MONDAY
8:30 a.m. —New Patients
9:00 a.m. —Follow-Up E.N.T. (all larynx cases)
12:00 Noon—Follow-Up Breast

TUESDAY

8:30 a.m. —New Patients
9:00 a.m. —Follow-Up GI, Soft Tissue, Bone
12:00 Noon—Follow-Up GYN

WEDNESDAY

9:00 a.m. —Follow-Up Skin,
Eye (2nd Wednesdays Only)
12:00 Noon—Follow-Up Chemotherapy,
Thoracic

THURSDAY

8:30 a.m. —New Patients
9:00 a.m. —Follow-Up Head &
Neck (all thyroid cases)
12:00 Noon—Follow-Up Urology

FRIDAY

9:00 a.m. —Follow-Up GYN
12:00 Noon—Follow-Up Urology, Pediatric

*Doctors should mail requests for service into clinic, thereby establishing definite appointments for patients. Emergencies handled upon telephone request.

NASHVILLE

Hubbard Hospital Tumor Clinic
1005-18th Avenue North. "A" Floor
Time: **Tuesday and Friday**
Hour: 1:30 p.m.
Nashville Metropolitan General Hospital Tumor Clinic
Hermitage Avenue
*Time and Hour:

TUESDAY

12:30- 4:00 p.m.—General and Thoracic Surgery

WEDNESDAY

12:30- 4:00 p.m.—Head and Neck, Urology

FRIDAY

9:30-12:30 p.m.—Gynecology
*Patients are seen by appointment only.



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T M A

THE VIEWING BOX

Poverty in the United States As Defined by Federal Standards*

A Report of the Bureau of Research and Planning
California Medical Association

The subject of this Socio-Economic Report is of tremendous importance to the medical profession because physicians should be aware that future programs for the expansion of health care services will be based and, in fact, are being based upon information which this Report contains, the relationship between poverty and accessibility of health care services is therefore quite direct. So, too, will be the impact upon the profession and the organization of medical practice.

The 1966 amendments to the Poverty Act are concerned with neighborhood health centers and a vast array of other programs which will touch every physician and every community which can be identified by the standards indicated in this Report as low income, poor, or near poor. For this reason the California Medical Association Committee on Welfare Medical Programs, among several others concerned with aspects of this problem, is trying to alert every county medical society of developments as well as of the responsibilities they should assume in working with the Office of Economic Opportunity and other community organizations in providing guidance and leadership in structuring programs compatible with the interests of the public and the health care professions.

This Report on poverty presents a current and prospective view of the problems and issues to be faced. Unless physicians see the relationship and join in a community effort to aid in resolving an issue which underlies public policy, we shall be looking back five or ten years from now to point out that we failed to take advantage of opportunities to assist in the development of a rational system of medical care for low-income groups.

* Reprinted from *California Medicine* 106:501, (June) 1967.

Individual physicians, component medical societies on a grass-roots level and CMA as a state organization should all be concerned with and aware of the facts.

SAMUEL R. SHERMAN, M.D., *Chairman*
Bureau of Research and Planning

Background

AMERICA'S "FORGOTTEN POOR" have, in recent years, received their fullest and most vivid exposure. Examination of the extent, nature, selectivity and relative permanence of poverty, despite surroundings of increasing prosperity, have aroused both government and private concern, resulting in a multiplicity of programs for action. Among them are those undertaken by the Office of Economic Opportunity, along with other agencies at various levels of national and local government. Since health care is one of the major concerns of a number of these programs, it will be of interest to the Medical profession to review the data which provide the rationale for such massive undertakings. This Report is based on the most recent account by the Social Security Administration of the extent of poverty in the United States,* which notes that, although impressive gains have been made, "there was yet much (poverty) to view with alarm."

In 1965 the Social Security Administration developed two criteria of poverty to bring some coherence and common definitions to the extensive data collected annually since 1959 by the Federal government. (See appendix for glossary of terms.) Using these criteria, numbers and characteristics of the "low-income" population over the five-year period 1959-64, a period distinguished for other groups by its rising prosperity and generally high employment, were analyzed. The problem was to determine if during this period the group had diminished or grown, or changed in consistency or habitat, in anticipation of later comparison with those data collected after the effects of the recently initiated government programs have been felt.

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Changes in Low-Income Group, 1959-1964

Of the 60 million households in March 1965 (counting as a separate unit every family group and every person living alone or with nonrelatives only), 12 million or 20 per cent were defined as poor. An additional 4½ million units had incomes low enough to qualify as near-poor. Thus, amidst increasing abundance and prosperity, at least 34 million Americans lived in a state of deprivation. Included in this group were from 21 to 31 per cent of the Nation's children and from 31 to 43 per cent of the aged.

The total number of persons with low-income status fell approximately five million and 5 per cent during the period 1959-64, this drop occurring almost exclusively in the lowest income category. While the poor decreased from 38.9 million or 22.1 per cent in 1959 to 34.1 million or 18.0 per cent in 1964, the near-poor changed only slightly from 15.8 million or 9.0 per cent in 1959 to 15.7 million or 8.3 per cent in 1964. This would indicate at least some upward shift economically within the low income groups.

Poverty is created through a selective process, with some groups always more prone than others. Therefore, any real improvement in the nation's economic well-being should ideally provide greater equalization in the differential risks of poverty among different groups. The groups that are still the most likely to be poor include the non-white, the aged, rural families, large families, and those with a woman as the head.

In most of the groups the story remains the same—still more improvement needed! In fact, the circumstances of some have actually deteriorated over the period, particularly where more than one "poor-prone" characteristic appears. For example, in 1964, 76 per cent of all non-white families with five or more children were poor, compared with 71 per cent in 1959. The two major hazards of the non-white child are a broken family or the low income of the father if he is present. One-third of the half-million non-white families with five or

more children in 1964 had a woman as their head and one-third had an unemployed male head. Half of the remaining families—one-third of all—had a male head who was fully employed.

Large families, particularly if vulnerable on other accounts, are more susceptible to poverty. In 1964 more than four out of ten families with a non-white head or a female head had less than the minimum standard, as did three out of ten farm families. These characteristics, combined with other high-risk variables, compounded the chances for an inferior economic status. This situation is reflected in the 69 per cent of all families with three or four children, headed by a woman, that are classed as poor and the 84 per cent with five or more children, that are found in the lowest category.

Among non-white families in 1964, while under one-fourth of those with no children under 18 were poor, over three out of four of those with five children were so classified. This compares with approximately one in ten and three in ten, respectively, among white families.

The unfortunate fact is that among all households headed by a woman, 44 per cent were in poverty in 1964, a relatively scant improvement from 50 per cent in poverty in 1959. The rate of poverty among households headed by a man fell from 18 per cent to 14 per cent in this period. As of 1964, therefore, a household headed by a woman had three times as great a chance of being poor as the household headed by a man.

The nation's rural population in 1964 had almost three in ten labeled poor, as compared with under two in ten chances for the city dweller, despite the fact that the criterion for a rural family is set 30 per cent below that of its urban counterpart. However, the incidence of poverty among the farm families dropped 12 points, from 41 per cent to 29 per cent, during this period, while it dropped only four points, from 23 per cent to 19 per cent, during the same period among city dwellers.

The age group 65 and older has the highest incidence of poverty in the population. Higher still is the subgroup of aged who live alone. During the five-year period, while the total number of poor decreased by five million, the total number of aged poor

* Recounting the poor—A five-year review: Social Security Bulletin, 29:20-37, April 1966.

increased by 300,000, one reason being an increase in the proportion living alone. Because the last five years has brought substantial increase in the number of aged, however, there was a decrease in percentages of the aged who are poor. The rate of poverty for aged unrelated individuals decreased significantly from 68 per cent in 1959 to 59 per cent in 1964. When broken down by race, however, the reality of this decrease is more evident. While the poverty rate among the white aged fell from 67 per cent to 57 per cent between 1959 and 1964, among the non-white aged it actually increased from 78 per cent to 79 per cent, a fact clearly illustrating that the programs and prosperity that have assisted the white aged population, at least through 1964, did not reach the non-white aged.

The Monetary Gap to Fill

If the government were to subsidize all 34 million persons defined as poor in order to raise them above the poverty threshold, an expenditure of \$11.7 billion, as of 1964, or 2.4 per cent of the Nation's personal income would have been required. Little improvement is likely, however, as long as expansion of the general economy moves at about twice the rate of the income of the poor, as has been the case in recent years. During the five-year period, while national personal income increased by 29 per cent, the number in poverty decreased by 12 per cent and their unmet income need by 15 per cent. As a group, the poor in 1964 had to manage on incomes totaling 59 per cent of estimated need, compared with 56 per cent in 1959.

The more favorable position of the aged poor in 1964 reflects to some extent the fact that three out of four persons aged 65 and older were receiving social security benefits, compared with three out of five in 1959.

The Poverty Problem in 1964

Since 1959 the poor have diminished by 1,200,000 persons. The most susceptible age groups are still the young (under 18) and aged (over 65), who comprise 60 per cent of those designated poor or near poor, while accounting for only 49 per cent of the total population. For many in this group, particularly children from fatherless homes, employment cannot be a solution. Fourteen

per cent were 65 or over and over 14 per cent were under age six. As many as 31 per cent of the aged were living below the poverty line. Among all children 18 and under, 20 per cent are growing up in an environment of poverty and nearly half of these with five or more siblings. Forty-one per cent of these children had fathers or mothers working full time, but were still unable to make enough, enough being \$65 per person per month. Including the near poor (which raises the outlay to 90 cents per day for food) would swell the poor aged group by 12 per cent and the nation's poor children by 11 per cent.

This still excludes the "hidden poor," those 65 and older living with more fortunate relatives rather than alone below the poverty line, and subfamilies who, if living alone, would qualify as poor. Including these would raise the number in poverty to 37 million and the total who are low income to 53 million. Of subfamilies who would have been poor on their own, however, half of those headed by a man and three-fifths of those headed by a woman kept off the poverty register by living with a non-poor relative.

Age and Poverty

Age and poverty are highly correlated, as has already been suggested. This is intensified somewhat by the tendency for this characteristic to be accompanied by others wherein poverty is an above average occurrence. For example, there is a high correlation between sex and poverty, women often having less education and lower earning power than men. Also, the aged have a preponderance of women, particularly women living alone, a variable likewise related to poverty. Few of the aged are employed, and social security, which covers only three-fourths of the aged, is but a fraction of their former wage. The fact that the number of aged living alone has increased may also be interpreted as an improvement position, in that they are enabled to maintain a household at all. It is significant that three times the percentage of aged poor live alone than of the aged non-poor. While living alone might have been the cause of their final impoverishment, however, it can not be assumed that

they had a choice. It should be pointed out that, with the lower poverty index criterion for the aged, the aged in general have fewer expenses and may by then own their own homes, etc. Also, savings are not included in the income evaluation. In 1959, 97 per cent of the men 65 and over and 75 per cent of the women had some money of their own saved. By 1964 the proportion with some other income was 98 per cent for the men and 82 per cent for the women. The significance of this fact should not be exaggerated, however, since in 1962, data taken from an earlier Social Security Administration survey* the median assets less home equity were still only \$3,000 for married couples and less than \$1,000 for the unmarried aged. It was in fact, as low as \$310 for unmarried men without OASDI and \$160 for unmarried women without OASDI.

The improvement in the position of the aged runs parallel and is in large part accountable to the extension of social security protection, including both the increase in benefits and in number of eligible beneficiaries, particularly women and nonwhite, and in higher earning records of those receiving it. The average payment to an aged beneficiary in this period increased from \$74 per month to \$79 per month. It was estimated that about 35 per cent of all aged social security beneficiaries in 1965 were living in poverty, as defined by the poverty criterion. An additional 38 per cent would have been poor except for their benefit checks. Only about one-fourth of all beneficiaries could have lived above the poverty line in the absence of social security benefits.

In 1964, all families with an aged head derived 25 per cent of all their income from social security payments, and about half from earnings. Aged families classed as poor, on the other hand, received 60 per cent of their income as a group from social security benefits and only 16 per cent from earnings, the rest coming from such sources as veteran benefits, dividends and rents, public assistance, contributions from persons outside of home, etc.

Youth and Poverty

Nearly 15 million of the 34 million poor in 1964 were under 18 living in families, 40 per cent of which were non-white and slightly more of which had five or more children. Almost 15 per cent of these children came from homes where the head was fully employed the year around, half of them as laborers, service workers or farmers. Only 8 per cent of them had professional, technical or clerical jobs, thus suggesting that education for better paying jobs might be one way to combat this problem. Among these families the tendency is to marry and reproduce early, exposing others to the same hopeless environment from which they will experience the same difficulty emerging, because of the same handicaps accrued by living in it. One in three of the poor age group 16 to 21 were neither high school graduates or in school, while one in seven of the non-poor in this age group were neither. There is thus a pattern to drop out of school, though education is often the only way to overcome one's low status. The cycle is thus perpetuated. Those in the age group 18 to 19 who leave school before graduating are more likely to marry, possibly as an escape from family surroundings. Twenty percent of the dropouts in this group are married, as compared with 11 per cent of the high school graduates. Income differences between those without and with a high school diploma increase with age. The sad fact is that while the dropout earns comparatively less with age, his family responsibilities and obligations become comparatively greater.

Conclusion

The problem of poverty is particularly acute today because of earlier neglect. Since there is still much to be discovered about the life patterns of the poor, long-term effects of deprivation can only be speculated upon, but the prospects appear to be dim. In the area of health care, it has been well established (see *Socio-Economic Report*, Vol. VI, No. 8, September 1966, U. S. Consumer Expenditures for Health Care, 1950-1964) that the utilization of medical care decreases with a decrease in income and education and an increase in family size. In addition, low-income groups are

* Assets of the aged in 1962: Findings of the 1963 survey of the aged: Social Security Bulletin, 27:4, November 1964.

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less likely to be insured than those who are better off and reports show that the insured receive about 50 per cent more medical care than the uninsured.

Thus, society is faced with finding solutions to alleviate or to correct those conditions resulting from or inducing poverty. Public policy is becoming more clearly defined as public concern is reflected in these manifold programs for the poor.

Appendix

These measures of poverty and low-income, defined in 1965 by the Social Security Administration, are based on the amounts needed by families of different size and composition to purchase nutritionally adequate diets at minimum cost when no more than a third of the family income is used for food. The food estimates are derived from the Department of Agriculture economy food plan for emergency use or when funds are very low.

Low-income: Those persons classified as either "poor" or "near poor" are included in this category. It is substantially below (by

about 50 per cent) the "modest but adequate" level described by the city worker's family budget, developed and priced by the Bureau of Labor Statistics.

Poor: The poverty line, which is still above the line of mere subsistence, considers family size, composition and farm/non-farm residence. From data compiled by the Council of Economic Advisors, a four-person non-farm family in 1964 was defined as poor if its money income for the year was less than \$3,130. (Median income for the country then was \$7,490.) For farm families the line is 30 per cent lower. This works out to about 70 cents a day per person for food, with twice as much again for other expenses.

Near poor: Still within the low-income category, this group, located just above the poor, earns approximately a third more than they do. In 1964 the upper limit was set at a yearly income of \$4,075 (and lower limit, the poverty line of \$3,130), for a four-person non-farm family. Farm families had a line 30 per cent lower. Per person per day this amounts to a food budget of 90 cents and a total daily budget of \$2.70.

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Monday, October 2, and Tuesday, October 3, 1967

15TH ANNUAL ASSEMBLY

Monday, October 2, 1967

- 7:30 REGISTRATION BEGINS
- 9:00 PHILIP THOREK, M.D., Prof. of Surgery, Cook Co. Graduate School of Medicine, Chicago, Ill., *"The Acute Abdomen in the Aged"*
- 9:30 GRANT W. LIDDLE, M.D., Prof. of Medicine, Vanderbilt Univ. School of Medicine, Nashville, Tenn., *"Ectopic Hormones"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 H. M. POLLARD, M.D., Prof. and Chr., Dept. of Int. Med., Univ. of Michigan Medical School, Ann Arbor, Michigan, *"Management of Small and Large Bowel Inflammatory Disease"*
- 11:00 T. MANFORD MCGEE, M.D., Clin. Assoc. Prof. Dept. of Otolaryngology, Wayne State Univ. School of Medicine, Detroit, Mich., *"Vertigo and Its Interpretation"*
- 11:30 CARROLL L. WITTEN, M.D., Pres. American Academy of Gen. Practice, Louisville, Ky., *"Medicare—What Does the Future Hold?"*

NOON

Luncheon Symposia—October 2, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)

- No. 1 "THE PATHOLOGY OF DIABETES—1967"
Guest Panelists: SHIELDS WARREN, M.D.
VERNON KNIGHT, M.D.
- No. 2. "CHANGING PATTERNS IN CANCER OF THE G.I. TRACT"
Guest Panelists: PHILIP THOREK, M.D.
H. M. POLLARD, M.D.
- 2:00 B. H. SCRIBNER, M.D., Prof. of Medicine, Univ. of Washington School of Medicine, Seattle, Wash., *"Dialysis in Chronic Renal Failure"*
- 2:30 JOHN G. BOUTSELIS, M.D., Assoc. Prof., Dept. Obstetrics & Gynecology, Ohio State Univ. College of Medicine, Columbus, Ohio, *"Carcinoma In Situ of the Cervix"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 VERNON KNIGHT, M.D., Chr. and Prof. of Medicine, Baylor Univ. College of Medicine, Houston, Texas, *"New Studies on the Common Cold and Influenza"*
- 4:00 SHIELDS WARREN, M.D., Prof. Emeritus, Pathology, New England Deaconess Hosp., Boston, Mass., *"Pathology of Cancer of the Thyroid and its Relation to Radioactive Fallout"*

Tuesday, October 3, 1967

- 7:30 REGISTRATION
- 9:00 GUY L. ODOM, M.D., Prof. Neurosurgery, Duke Univ. Medical School, Durham, N. C., *"Intracranial Bleeding of Non-Traumatic Origin"*
- 9:30 LOUIS K. DIAMOND, M.D., Prof. Pediatrics, Harvard Medical School, Boston, Mass., *"Blood and Blood Replacement: Benefits and Hazards"*
- 10:00-10:30 A.M. INTERMISSION—REVIEW OF EXHIBITS
- 10:30 ROBERT A. ROBINSON, M.D., Prof. Orthopaedic Surgery, Johns Hopkins Univ., Baltimore, Md., *"Anterior Fusion of the Cervical Spine"*
- 11:00 HARRY W. SOUTHWICK, M.D., Clin. Prof. of Surgery, Univ. of Illinois College of Medicine, Chicago, Ill., *"Management of Disseminated Breast Cancer"*
- 11:30 JAMES T. GRACE, JR., M.D., Asst. Dir., Roswell Park Memorial Institute, Buffalo, New York, *"Viruses and Neoplasms"*

NOON

Luncheon Symposia—October 3, 1967—\$4.00
(Limited to 85 physicians per symposium)
(Tickets must be obtained prior to assembly)

- No. 3 "DO'S AND DON'TS IN THE EMERGENCY ROOM"
Guest Panelists: R. A. ROBINSON, M.D., GUY L. ODOM, M.D., H. W. SOUTHWICK, M.D.
- No. 4 "LYMPHOMAS AND RETROPERITONEAL TUMORS"
Guest Panelists: J. T. GRACE, JR., M.D., HARRIS D. RILEY, M.D., J. E. LEWIS, JR., M.D., L. K. DIAMOND, M.D.
- 2:00 HENRY N. HARKINS, M.D., Prof. & Chr., Dept. of Surg., Univ. Washington School of Medicine, Seattle, Wash., *"Development and Advantages of the 'Combined Operation' for Duodenal Ulcer Incorporating Selected Vagotomy"*
- 2:30 HARRIS D. RILEY, JR., M.D., Chr. & Prof., Pediatrics, Univ. of Oklahoma School of Medicine, Oklahoma City, Okla., *"Measles Vaccine: Results of Studies and Use in Practice"*
- 3:00-3:30 P.M. INTERMISSION—Review of Exhibits
- 3:30 EDWARD D. FREIS, M.D., Sr. Medical Investigator, Veterans Administration, Washington, D. C., *"The Treatment of Hypertension"*
- 4:00 J. EUGENE LEWIS, JR., M.D., Assoc. Prof. of Clin. Surgery, St. Louis Univ. School of Medicine, St. Louis, Mo., *"The Optimum Age for Elective Surgery in Children"*



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Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

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NO. 10

The author alerts the family physician and pediatrician to the early signs of impaired vision so preventive measures may be instituted.

The Physician and Prevention of Blindness*

ROGER L. HIATT, M.D., Memphis, Tennessee

Introduction

Some areas of medicine should be of concern to all physicians regardless of their specialty or area of practice. The prevention of blindness is one of these. The purpose of this paper is to describe the role of the general physician, pediatrician, and other physicians in the prevention of blindness through early detection and treatment as well as through education. It is estimated that one-half of all blindness today could be prevented or treated if found early.¹ For 84% of the legally blind children in this country, blindness begins prior to one year of age, 46% prenatal, and 38% in the first year of life.²

Some problems not directly resulting in blindness will be discussed. The subjects will be divided into a number of topics for convenience.

Visual Screening

It is generally agreed that all visual screening should be performed by properly trained laymen to avoid the assumption on the part of the patient or parent that an "eye examination" has been performed.^{3,4} The screening of the pre-school child, the school child, the applicant for a driver's license, the industrial worker, or whom-ever it may be, should be supervised, of course, by the physician. It would be ideal if every child entering school could have a complete ophthalmologic examination, but the available manpower will not permit

this.⁵ Careful screening is aimed at limiting the "over" and "under" referrals to a minimum, if possible. The "E" game or toys and pictures for the pre-school, and the Snellen Letter for the grade children are the most useful and most practical vision tests available.⁶ Stereoscopic instruments, such as the Bausch & Lomb Orthorater and Titmus Screener, have greater application in the adult population. Programs for visual screening lead to the later detection by the ophthalmologist who examines the referred patient for many pathologic processes in addition to refractive errors as such.⁷

Strabismus and Amblyopia

Obvious strabismus (tropias) can be detected by shining a light into the eyes and noting the corneal reflexes to see if they are centered (Hirshberg test). In fact, a photograph may reveal the abnormality quite well. However, the most reliable method is to do the alternate cover test of the eyes and observe the underlying movement when fusion is thus interrupted.

If frank strabismus exists, the child should be referred to an ophthalmologist *whenever* the condition is *first* discovered.⁸ Amblyopia is best treated the earlier it is discovered and is generally untreatable if not discovered before age 7. Also, the demand for binocular vision has become greater in our space age, and it too is best restored or developed prior to age 7. Operations for congenital strabismus are being performed at a much earlier age than formerly, with better results in preventing the sequellae of strabismus. In fact, congenital esotropia is now treated surgically prior to the first birthday. The early cosmetic im-

*From the Division of Ophthalmology, University of Tennessee College of Medicine, Memphis, Tennessee.

This work was supported in part by a training grant No. NB-10025 from the U. S. Public Health Service, National Institutes of Neurological Diseases and Blindness.

provement is also rewarding to the patient and the parent.

Other than strabismus, the next most common cause of amblyopia is anisometropia,—an inequality of the refractive power of the two eyes.⁹ Routine testing of the visual acuity of the preschool child in the physician's office can result in an early referral when corrective lenses can restore the visual potential.^{10,11}

Glaucoma

The common type of glaucoma is properly called a "thief in the night" because it steals away vision without producing much for the patient to notice in the way of symptoms. It is estimated that about 3 to 4% of all persons in the United States over 40 years of age have glaucoma, half of whom are unaware that it exists.¹² Every physician seeing a large number of geriatric patients has at his disposal the use of a simple screening test, the tonometer. If the repeat intraocular pressure measures over 22 mm. Hg. Schiötz, or if there is a difference greater than 55 mm. Hg. Schiötz between the two eyes, the patient should be referred for further diagnostic studies by an ophthalmologist.¹³ Patients in whom there is a family history of glaucoma should be rechecked yearly and possibly a lower pressure than 22 mm. Hg. Schiötz should be considered suspicious in this group.

The physician should be acutely aware of suspicious signs, such as pain and redness, in a patient with a shallow anterior chamber. Caution should be the guide when considering dilating such a patient for study of the fundus, and the pupil should be brought back to normal with pilocarpine before the patient leaves.

The early appearance of photophobia and lacrimation, and later the sign of clouding of the cornea and enlargement of the globe, should make the physician aware of congenital glaucoma in the child. Prompt treatment is a *must*, if blindness is to be prevented.

Trauma

The best "treatment" yet known for trauma to the eye is prevention. The eye, unlike some other parts of the body, cannot withstand loss of portions of it without serious consequences in loss of function.

Industrial accidents to the eye are all too frequent in this complicated machine and chemical age in which we live. An eye safety program including the use of protective lenses and goggles in hazardous jobs is imperative, if we are to prevent irreparable loss of sight.¹⁴ Many booklets are available to describe hardened lenses, plastic lenses and super armoplate lenses used in industrial vision work.¹⁵

Also of paramount importance is the prevention of damage to the eye in industrial and shop classes, conducted in high schools and vocational schools, involving a younger age group. Twelve states have recently processed laws requiring the use of protective lenses in such situations, and such a law has been proposed in Tennessee.¹⁶

Children in the younger age groups should be kept from sharp instruments, such as knives, bow-and-arrows, scissors, pencils, etc., that can lacerate the cornea and eye structures so readily, if care is not taken.¹⁷ Somewhat older children are more susceptible to B-B-gun injury and injuries from fireworks. The use of these agents about any home or playground is most dangerous and can result in disastrous consequences to the eye.

It is reported that 65% of instances of trauma are in persons age 20 or under, and males predominate 2 to 1 over females.¹⁷ It is also stated that 10% of 28,000 injury-producing automobile accidents caused ocular or orbital damage. Power mowers of the rotary type are responsible for eye injuries to children and others observing the mowing. This is especially prevalent in the springtime when debris has collected in the yards throughout the winter months.

In any age group the damage resulting from strong acids and alkali to the eyes is most dreaded. The use of copious amounts of *water immediately* upon discovery of the injury is by far the most effective and most important treatment that can be given. One should not worry about a specific neutralizing agent but should immediately irrigate the eyes with water or any other suitable and available liquid.

Direct burns to the eyes require immediate care to prevent secondary damage as in infection and unnecessary scarring.

Abrasions of the cornea from foreign bod-

ies heal well after antibiotic ointment and patches to the eyes. Any blood inside the eye, regardless of the location, should require referral to an ophthalmologist.

Infections

Infection inside the eye is dreaded since the eye tolerates infection poorly and tissue is destroyed in a manner similar to that of trauma to the eye. The media from the cornea to the retina may become opaque with infection and produce cloudy vision.

Any ophthalmic neonatorium should be thought of as serious, always keeping in mind the possibility of gonorrhea which can destroy the vision over night. Prophylactic silver nitrate to the eyes just after birth is the "hallmark" of good preventive care.

Inflammation of the nasolacrimal drainage system and conjunctivitis of all types produce loss of vision when the cornea becomes secondarily involved. Therefore, these should also be treated with this complication in mind.

Any persistent watering of the eyes or inflammation in a child past 3 months of age should have the benefit of irrigation and/or probing of the nasolacrimal duct for congenital stenosis. Otherwise, general anesthesia may be required later and possibly much more drastic surgery, to clear up the infection.

Apparently, *Pseudomonas aeruginosa* is capable of producing infection of the cornea only after injury or ulceration permits the organism to gain entry into the tissue.¹⁸ Thus, *Pseudomonas* keratitis is a secondary infection following injury or the application of contaminated materials to an injured or diseased cornea. Great care should be used to be sure that all solutions used in and about the eyes are sterile.

Any keratitis or corneal ulcer should receive immediate and vigorous attention, since this "window" of the eye must be kept clear and smooth if one is to maintain good vision. The ulcer of herpes simplex should always be remembered in dealing with a red eye. If fluorescein reveals a dendritic figure, immediate attention should be given this eye. It should be remembered that steroids have an adverse effect on herpes simplex and *should not be used*. Other secondary side effects to steroids in the eye in-

clude superimposed infections with fungi and steroid-induced cataract and glaucoma. The *only* use by a nonophthalmologist of cortisone in the eye should be in known allergic conditions.

Any intraocular infection is doubly serious because of its tissue-destroying character. Vigorous use of antibiotics systemically, as well as antibiotics applied locally may result in salvaging vision in an otherwise hopeless situation.

Cellulitis of the orbit brings to mind dreaded complications, including thrombosis of the cavernous sinus. Meticulous care of wounds about the eye, including proper cleaning and suturing, will help to avoid cellulitis from beginning.

Uveitis (which includes iritis, chorioretinitis, iridocyclitis, etc.) is probably due to an allergy or an auto-immune mechanism most of the time. However, the granulomatous variety, as contrasted to the nongranulomatous type, is thought to be of infectious origin. Any new case of uveitis should have the benefit of a complete ophthalmologic examination because of the threat of chronicity with the various complications of glaucoma, cataract, etc.

Cataracts

Congenital cataracts can produce various degrees of obstruction to good vision. Many opacities of the lens are insignificant and require no treatment. The unilateral cataracts in a child, even if mature, carries a poor prognosis for vision in that eye. With newer methods of surgical intervention, the prognosis is improved for fair vision in the eye when a dense, mature congenital cataract is removed.

Senile cataracts remain the most common cause of blindness in adults today. However, when operated upon, about 90 to 95% of all patients having uncomplicated senile cataracts have satisfactory results following operation. Cataract surgery is the most common operation performed in ophthalmology and one of the most common surgical procedures.

Rehabilitation of the Blind

Legal blindness is defined in Tennessee as "visual acuity of less than 20/200 or a visual field of less than 20 degrees in diameter in its widest meridian in the better eye."

The trend now is to keep the blinded child as close to a natural environment as possible in obtaining an education. With the use of special optical aids, large print books, so-called sight-saving or resource room classes, and specially trained teachers, more and more of these children are being trained in the area in which they live. The resident school for the blind is reserved more for the totally blind so they may be taught Braille.

Every state provides counseling and financial help for the workers disabled by visual loss.¹⁹ Medical care is also provided along with special help, such as optical or low vision aids, to enable the worker to perform at his best. Home teachers are available to guide the newly blind into more security in daily living. The federal government provides, without cost, "talking book" services which consist of all types of books, magazines, and even newspapers recorded on records or tapes to which the blind may listen for personal advancement or enjoyment.

Short-term training institutions are available to orient the newly blinded patient in the world of darkness in which he must live.

Sheltered workshops for the blind are available for those who cannot find employment in public and private industry.

Reading Problems

Reading problems do not usually result from or lend to blindness, of course. However, the frequency of reading difficulties in children is estimated to be in the range of 8 to 10% of all grade children. Of this number, about 1% are suffering from a specific reading disability which has been labeled *dyslexia*. With the great emphasis now upon education, and with the vital role played by reading ability, this problem becomes one of major importance. Many of these children are of superior intelligence and do well in subjects such as arithmetic but do poorly in reading subjects.²⁰

The physician should search for causes such as visual problems, hearing difficulties, neurologic or emotional problems, impoverished schooling, physical problems of any type, psychologic difficulties, parent or teacher conflicts, etc. However, many times no specific cause can be detected. In

this event, help should be sought of a reading center, remedial reading teacher, perceptually handicapped classes, or others in the area interested in this problem.

Summary

Physicians in all areas of medicine should be concerned with helping to prevent blindness. Education along with early detection and treatment are roles in which all physicians concerned should devote their attention.

The common causes of blindness and their prevention have been discussed. More satisfaction can come from preventing the loss of vision than from salvaging what is left.

858 Madison Ave.
Memphis, Tenn. 38103

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* * *

PROFESSIONAL COURTESY. Adopted by Judicial Council of the A.M.A.

June 17, 1967

The custom of professional courtesy embodies the ancient tradition of fraternalism among physicians in the art which they share, and their mutual concern to apply their learning for the benefit of one another as well as their patients. The Judicial Council reaffirms and endorses the principle of professional courtesy as a noble tradition that is adaptable to the changing scene of medical practice.

Professional courtesy is not a rule of conduct that is to be enforced under threat of penalty of any kind. It is the individual responsibility of the physician to determine for himself and within his own conscience to whom and the extent to which he shall allow a discount from his usual and customary fees for the professional services he renders, and to whom he shall render such services without charge as professional courtesy.

The following guidelines are offered as suggestions to aid physicians in resolving questions related to professional courtesy.

(1.) Where professional courtesy is offered by

a physician but the recipient of services insists upon payment, the physician need not be embarrassed to accept a fee for his services.

(2.) Professional courtesy is a tradition that applies solely to the relationship that exists among physicians. If a physician or his dependents have insurance providing benefits for medical or surgical care, a physician who renders such service may accept the insurance benefits without violating the traditional ethical practice of physicians caring for the medical needs of colleagues and their dependents without charge.

(3.) In the situation where a physician is called upon to render services to other physicians or their immediate families with such frequency as to involve a significant proportion of his professional time, or in cases of long-term extended treatment, fees may be charged on an adjusted basis so as not to impose an unreasonable burden upon the physician rendering services.

(4.) Professional courtesy should always be extended without qualification to the physician in financial hardship, and members of his immediate family who are dependent upon him.

In the preceding issue of the *Journal* appeared a description of the Regional Medical Program. Here is offered a descriptive story of the implementation of the Mid-South Regional Medical Program.

Mid-South Regional Medical Program*

STANLEY W. OLSON, M.D., Nashville, Tenn.

How was the Tennessee Mid-South Regional Medical Program organized?

Dean Batson of Vanderbilt University School of Medicine and Dean Rolfe of Meharry Medical College both submitted letters of intent to the National Institutes of Health in January 1966, expressing the interest of their respective schools in participating in establishing a Regional Medical Program for this section of the country. Upon invitation, Mr. Stephen Ackerman of the Division of Regional Medical Programs met in Nashville on February 13, 1966, with a group of citizens representing interested organizations and individuals in the region for a discussion of the aims and requirements of the proposed program as then envisioned. While many uncertainties were expressed in the written reactions to this meeting, sent at the request of Dean Batson, there was obtained from this representative group of citizens an expression of the desirability of proceeding with a more complete examination of the possibilities for establishing a Regional Medical Program here. Dean Batson then established communication with the Hospital and Health Planning Council, a formal organization established in 1964 to aid in coordinating health related activities in the Nashville Metropolitan area with a membership representing all interested facts of health care for this area. He received its concurrence in the desirability of proceeding with plans to establish such a Regional Medical Program. With the Council of this group, the two medical schools and other interested organizations, the initial Advisory Group was established. Dean Batson appointed a committee of the Vanderbilt faculty to examine the needs, resources and requirements as they related to Vanderbilt and to aid in the preparation of an application for a planning grant. President West of Meharry Medical

and Dental College appointed a parallel committee from the Meharry faculty. From these discussions, statements of interest and queries of possible inclusion in the program from persons throughout the proposed region, and with the approval of the Advisory Group came the decision to make application for a planning grant and the approval of initial objectives. The prime stimulus for these activities was a recognition by the people involved in the preplanning for a Regional Medical Program in the Tennessee Mid-South Region of the challenge presented by this new legislation which provides a means for involving the resources of this region in a coordinated effort to improve health. It provides a pathway for new knowledge derived from productive research endeavors to find its way rapidly to a regionwide application for improved care for patients with heart disease, cancer and stroke.

How is the Regional Advisory Group appointed?

The appointment of the Regional Advisory Group is the responsibility of the applicant institution, in this case, Vanderbilt University. The program, however, is cosponsored by Meharry Medical College and Meharry is fully consulted in the appointment of members to the Regional Advisory Group. Nominations were solicited from physician groups and others throughout the region. The present membership includes:

Physicians	28
Private practice	16
Other	12
Dentists	2
Nurses	4
Hospital Administrators	6
Lay Persons	18
Educators	
Hospital Trustees	
Labor Representatives	
Public Officials	
Total	58

*From Vanderbilt University School of Medicine, Nashville, Tenn.

The membership of the Executive Committee of the Regional Advisory Group includes 5 physicians, (3 in private practice and 2 from medical schools); 1 nurse; 1 hospital administrator and 2 hospital trustee representatives. The Director of the Tennessee Mid-South Regional Medical Program is an ex-officio member, acting as Secretary without vote.

What action has been taken to plan the Tennesse Mid-South Regional Medical Program since the planning grant was awarded in August of 1966.

One of Dean Batson's first steps as acting Program Coordinator for the Regional Medical Program was to appoint a visitation committee of which Dr. Sam Stephenson, Associate Professor of Surgery at Vanderbilt, was Chairman. Mr. Basil Phillips, who was appointed Administrative Director, proceeded to establish a headquarters office for the Regional Medical Program at the Oxford House adjoining the Vanderbilt campus. The visitation committee and Mr. Phillips conducted a series of visits to more than 35 communities in the region from June 8, 1966 through January 15, 1967. Some of these obviously preceded the award of the planning grant. In November 1966, Stanley W. Olson, M.D., was appointed Director of the Program on a full-time basis. However, he could not assume his duties until approximately the middle of January 1967 because he had agreed to serve as a special consultant to the Division of Regional Medical Programs to organize a national conference on Regional Medical Programs which was held in Washington, D. C. January 15 through January 17, 1967. Activities following his appointment may be described under the following general headings:

A. Exploration with the faculties of Meharry and Vanderbilt University Schools of Medicine of the specific areas of responsibility in education and research they might be willing to assume under the Regional Medical Program.

B. Renewal of contacts with physicians in the larger communities throughout the region to determine their interest in participating in the establishment of a Regional Medical Program.

C. Communication with a large number of voluntary and public health agencies.

D. Collection of information about the number and distribution of physicians and nurses and hospitals in this region.

E. Expansion of the Regional Advisory Group made up of physicians, nurses, dentists, medical center officials, hospital administrators and representatives of public and voluntary health organizations.

F. Recruitment of administrative staff and acquisition of new office space in the Baker Building.

How has this planning activity influenced the program?

Again using the same categories as above, the results to date might be described as follows:

A. Traditionally medical school faculties have not shown great interest in the development of educational and demonstration programs outside their own institutions. We have been greatly encouraged, therefore, to find substantial interest at both schools in such areas as: continuing education for physicians; training of more x-ray and laboratory technicians; special training for nurses in such areas as medical and surgical nursing; assisting other institutions establish intensive coronary care units; use of advanced methods for treating cancer; development of a central rehabilitation facility for education and advanced care; experimentation with new methods for nursing care in the hospital; establishment of a multiphasic screening center that will serve a large group of economically deprived persons.

B. We have had varying levels of response from physicians in a number of communities. Several have shown considerable enthusiasm for a proposal to establish in their community an "area educational center," which would serve as a focal point for continuation education activities. Medical schools would cooperate with these institutions to develop continuing programs of some substance, especially if the physicians in these communities would in turn seek to relate their program to the needs of physicians in the surrounding smaller communities.

Other physician groups have responded

by planning for improved care facilities, e.g., intensive coronary care units in their own institutions. Community hospitals have volunteered to expand existing training programs such as those for the training of nurses to staff coronary care units and for the training of laboratory technicians and laboratory assistant. Regional Medical Program committees have been formed by local medical societies in such communities as Hopkinsville, Knoxville, Nashville, Chattanooga, Johnson City and others. Where this has been done, the level of interest and the progress made has been substantially greater than in those communities where no such committees have been established.

C. We have obtained considerable information about the resources of the region from such groups as the Tennessee Heart Association, the Tennessee Hospital Association and the Tennessee State Department of Health. Our own surveys of health personnel and facilities have been carried out largely by the Department of Biostatistics of Vanderbilt University with the assistance of the Statistical Division of the Tennessee State Department of Health.

D. The Regional Advisory Group has been expanded to provide broader representation from the entire region. Nominations were solicited from physician groups in the various areas of Tennessee and Kentucky included in the Tennessee Mid-South region. These nominations included both physician and lay representatives. After an initial organizing meeting, Mr. Tom Kennedy was appointed Chairman of the expanded Regional Advisory Group and an Executive Committee of 9 members was also appointed. Dr. William Vaughan, Chairman of the Tennessee Medical Association's Liaison Committee for Medical Schools, was appointed to this Executive Committee. By-laws have been drawn up, presented to the entire membership and approved. The Executive Committee has had two meetings. The full membership of the Regional Advisory Group met for 6 hours on June 10, 1967 to review projects proposed for inclusion in an operational grant application.

E. The administration of the program has been strengthened by the establishment

of offices and program coordinators at each of the two medical schools, Meharry Medical College and Vanderbilt University School of Medicine. At the present time we are in the process of establishing administrative offices at Hopkinsville and Chattanooga, looking toward the development there of area educational centers. The central administrative staff in Nashville has been expanded to include an Executive Assistant, a highly qualified educator in the Affiliated Health Sciences field and one in the nursing field. Appointments have been made for persons to join the staff in sociology and community health. An experienced physician has been appointed to help coordinate several of the clinical care projects and a registrar has been appointed to organize the growing volume of statistical data that is constantly being accumulated.

What approach is being used in the development of the Tennessee Mid-South Regional Medical Program?

The previous discussion of planning activities indicates how our communication and organization patterns have been initiated. The geographic features of the region, including the distribution of the population into four major areas, have been carefully considered. Important contributions to planning have been made by physicians from various communities who have identified their needs for improved educational opportunities, for additional and better trained affiliated health personnel, and for improved facilities in their local hospitals. The faculties of the two medical schools have suggested ways to improve education and to translate research advances into improved patient care. The core staff of the Regional Medical Program will include persons who have competence in operations research in the educational and medical care fields.

Out of the numerous personal and group discussions has come the judgment that we should prepare an application for operational funds to implement specific projects. These projects have been proposed by local physician groups, by the participating hospitals and by the sponsoring medical schools. They have been reviewed by the Regional Advisory Group and those approved have been organized into a single

application requesting approximately \$2½ million for the first 12 months of operation. The application has been sent to the Division of Regional Medical Programs for review. Funds, if granted, will probably be available about January 1, 1968.

What kinds of projects are included in the application?

The index of the operational grant application illustrate how we propose to start the Tennessee Mid-South Regional Medical Program.

I. Projects That *Strengthen Cooperative Arrangements* Throughout The Region

A. Projects for *Education* of Health Personnel

a) *Physicians*

1. Continuing Medical Education (Meharry Medical College)
2. Continuing Education Program (Vanderbilt University School of Medicine)
3. Hopkinsville, Kentucky, Education Center (Jennie Stuart Memorial Hospital)
4. Chattanooga Education Center (Baroness Erlanger Hospital)
5. Special Training for Practicing Radiologists (Vanderbilt University School of Medicine)

b) *Nurses*

6. Cardiac Nurse Training Program (Mid-State Baptist Hospital, Nashville)

c) *Technicians*

7. School of X-Ray Technology (Meharry Medical College)
8. Radiology Technologist Training Program (Vanderbilt University School of Medicine)
9. Nuclear Medicine Training Program (Vanderbilt University School of Medicine)
10. Expansion of School of Medical Technology (Baroness Erlanger Hospital, Chattanooga)

B. Projects to *Improve Patient Care*

a) *Heart Disease*

- Coronary Care Unit Project
11. Vanderbilt University Coronary Care Unit
12. Franklin Coronary Care Unit (Williamson County Hospital)
13. Hopkinsville Coronary Care Unit (Jennie Stuart Memorial Hospital)
14. Clarksville Coronary Care Unit (Clarksville Memorial Hospital)
15. Nashville General Coronary Care Unit

(Nashville Metropolitan General Hospital)

16. Meharry Medical College Coronary Care Unit
17. Murray Coronary Care Unit (Murray-Calloway (Ky.) County Hospital)
18. Chattanooga Coronary Care Unit (Baroness Erlanger Hospital)
19. Baptist Hospital Coronary Care Unit (Mid-State Baptist Hospital, Nashville)
20. Crossville Coronary Care Unit (Uplands Cumberland Medical Center)
21. Tullahoma Coronary Care Unit (Harton Memorial Hospital)

b) *Cancer*

22. Computer Linked Program to Improve Super-voltage Therapy of Cancer (Vanderbilt University School of Medicine)
23. Columbia Cancer Therapy Program (Maury County Hospital)
24. Knoxville Cancer Therapy Program (St. Mary's Hospital)
25. Meharry Super-voltage Therapy Program (Meharry Medical College)

c) *Stroke*

26. Planning and Implementing a Rehabilitation Center and Program to Serve the Needs of This Region (Vanderbilt University School of Medicine)

II. Projects That *Improve Health Services* to Population Groups with *Special Needs*

A. Through Training of Health Personnel
Introductory Note

27. Proposal to Improve Patient Care in a Remote Mountain Community by Recruiting and Training Health Aides for New Extended Care Facility—Scott County Hospital

B. Through Improved Methods for *Early Detection* of Heart Disease, Cancer, Stroke and Related Disorders

28. Health Evaluation Studies on a Defined Population Group — Multiphasic Screening Center (Meharry Medical College)

III. Projects That Are *Innovative* and Have Implications for Other Regions as Well as This One

A. *New Patient Care Model*

Introductory Note to the Two Companion Projects on Nursing

29. Experiment to Test and Implement a Model of Patient Care (Vanderbilt University Hospital)
30. Patient Care Model (St. Thomas Hospital, Nashville)

31. Patient Care Model
(Mid-State Baptist Hospital, Nashville)
- B. *Nurse Specialist Training for New Patient Care Model*
 32. A Medical-Surgical Nurse Specialist Graduate Education Program to Improve Nursing Care of Patients with Heart Disease, Cancer and Stroke
(Vanderbilt University School of Nursing)
- C. *Program to Assist Negro Students Enter Health Professions*
 33. College Bio-Medical Science Summer Program
(Meharry Medical College)
- D. *Increasing Efficiency of Health Personnel Through Improved Handling of Medical Information*
 34. Medical Data Processing
(Vanderbilt University Hospital)

Can you indicate what is planned for the continued education of physicians?

The following information has been taken from the proposal by Dr. Lloyd Ramsey of Vanderbilt University School of Medicine for a project to establish a program of continuing education.

The foundation of health care in America is the informed and skilled physician. From the very first steps in planning the Tennessee Mid-South Regional Medical Program, major need has been expressed by physicians not associated with major teaching centers for the development of improved methods for information transfer between the medical centers and the physician. Vanderbilt University School of Medicine, a privately endowed institution, has not had the financial resources up to this point to establish a significant continuing education program with regional orientation. Such courses as have been given usually have their origin within the medical center with little advice having been obtained from the prospective student concerning the type of program needed. Instructors who are asked to contribute because of their faculty position usually consider it to be an additional task. Any initial enthusiasm for such limited course presentation by the instructor is quickly depressed by the small student attendance.

Similar dissatisfaction is expressed on the part of the physician student. The subject material rarely relates to his desire for in-

formation which is usually of a very practical nature concerned with his immediate problems of patient care. He has learned in his schooling that information is best obtained by dealing with patients at the bedside and in a general way thinks that continued education should be centered around the patient in his own environment with the teachers traveling to him.

These expressions of dissatisfaction on the part of students and instructors have their basis in the problem of the time available for them to carry on this required educational function. Each is willing to allocate his own portion of time but these allocations rarely coincide without enormous effort on the part of each. The time required for travel to or from the medical center becomes prohibitive in a region of this size with over 100 community hospitals. In planning, it has become obvious that solution to this time and distance barrier must include: (1) new methods of communication which make the instructor available to the student at the time the student desires that contact, and (2) the development of methods for transfer of information which allow the student to acquire his needed knowledge without the requirement of an instructor. Numerous modern methods for communication and education exist which have not as yet been applied to the problems of continuing education in this region. Which of those will be most effective is not known. Consequently, the program will be developed as a series of educational experiments applied in limited areas followed by evaluation before successful programs are expanded.

It is proposed that continuing education for the practicing physician remote to the medical center be tested by establishing educational centers in two locations. The first, a small community hospital of 150 beds (Hopkinsville, Kentucky), and the second, a large 700 bed hospital in a metropolitan community (Chattanooga, Tennessee). The medical staffs of each of these hospitals, the Boards of Trust and the administrative staffs, have met to consider and approve the program. Each has requested that a full time position be established for a physician who will have responsibility for continuing education. It is anticipated that these physi-

cians will have faculty appointments at Vanderbilt University School of Medicine but will work full time at the respective hospitals in Hopkinsville and Chattanooga. Each of these hospitals have a referral and physician-communication area of several counties surrounding it and containing other smaller hospitals with their own medical staffs which will be linked through this arrangement with the medical center at Vanderbilt University. In this communications network, Vanderbilt School of Medicine will have primary responsibility for providing the necessary flow of information in the continuing education program.

The busy community of scholars in the Medical Center will require additional professional personnel to be able to meet this responsibility. The subject matter for such a program will naturally emanate from the faculty which is in contact with similar faculties in other medical centers in the nation. The faculty is competent to provide this necessary function but required the means for development of effective means for transmitting the subject matter.

If an Operational Grant Award is made, will planning for new projects continue, or will the Regional Medical Program include only those groups participating in projects already submitted?

It is intended that the planning function will be a continuing one. In the Guidelines,

established by the Regional Medical Programs, it is made clear that Supplemental Grant Requests will be encouraged; they can be submitted approximately three times per year. All of the new projects will, of course, have to be approved by the local Regional Advisory Group, but it may not be necessary to have a prolonged national review process as is required for the original Operational Grant Application.

Many of the planning activities which have been initiated will require a sustained effort over a period of several years before it will become possible to make certain kinds of recommendations for the improvement of education or for the demonstration of approved care. It has become evident, however, that the kind of planning which is involved in the preparation of operational projects is perceived by physicians as being a more practical kind of planning than that involved in long range planning which is sometimes described as "Blueprint" type of planning. We believe that both kinds are necessary and both will continue.

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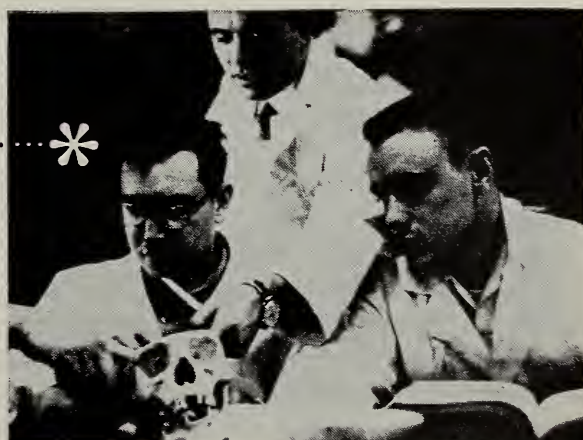
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Combining the use of the Lynch suspension laryngoscope with the operation microscope, the authors have found an excellent means of operating upon the larynx.

The Operation Microscope in Peroral Laryngeal Surgery*

WILLIAM G. KENNON, JR., M.D. and JERRALL P. CROOK, M.D., Nashville, Tenn.

The purpose of this article is to call attention to the satisfaction that can be derived from the marriage of two well-known instruments. No originality of thought or technic will be claimed, and no series of unusual cases or spectacular results will be presented. It is our desire to interest others in the use of the operation microscope in combination with the Lynch suspension laryngoscope as an excellent method of approaching the laryngeal disorders which can be treated perorally.

Dr. Edwin Cocke first told me several years ago of his use of this method and was enthusiastic about the excellent view of the larynx obtained by the use of this combination of instruments. One of us (J.P.C.) had some knowledge of the technic and we have worked together to solve the minor technical problems involved and to develop a routine which has been satisfying to us and beneficial, we believe, to our patients.

The Zeiss-Opton operation microscope is well-known to all ear surgeons today. It had its origin in 1921, when Nylen¹ had the idea of using a microscope in some work he was doing on animals. Improvements and variations have been introduced through the years until the development of the instrument which is presently the standard throughout the world.² It is difficult to conceive of any significant improvement that could be made on this excellent tool.

Suspension laryngoscopy was discovered by Killian, and he exhibited his instrument at the International Laryngological Congress in Boston in 1911.³ Dr. R. C. Lynch, of New Orleans, became interested in this method of viewing the larynx, and he modified Killian's instrument to develop

the Lynch suspension apparatus as we know it today.⁴ It does credit to the genius of Lynch that his early instruments were so suitably constructed for the use for which they were conceived that there has been virtually no significant change in design since his first models were manufactured in 1914. This apparatus permits a binocular view of the larynx and the surgeon has the use of both hands. These features were and are its greatest asset. Although it has been employed in conjunction with local anesthesia it is best employed under general anesthesia. This fact may account for the gradual loss in popularity of suspension laryngoscopy over the past thirty years. The modern general anesthetics had not been developed and the trend was toward the Jackson laryngoscope with the use of topical anesthetics. In a survey of 128 hospitals in 1964, Lillie⁵ found suspension laryngoscopy used so seldom that he postulated only about 50% of otolaryngology residents had ever seen its use. Modern general anesthesia in conjunction with curare-like agents, coupled with the use of the operation microscope is bringing about a resurgence of interest in this excellent method of exposing the larynx for binocular inspection and bimanual surgery.

Technics vary, but the common denominators of binocular vision with magnification and bimanual freedom remain constant.^{6,7}

Our method utilizes the Zeiss microscope with straight oculars and the 300 mm. objective lens. When the eye pieces are adjusted properly it gives a working distance of more than 12 inches. The Lynch suspension apparatus is used without modification. (Fig. 1) The choice of general anesthetic is left to the anesthesiologist but we have found that intravenous Thiopental in con-

* Presented at the meeting of the Tennessee Academy of Otolaryngology April 13, 1967, Memphis, Tenn.



FIG. 1. Component parts of Lynch suspension apparatus.

junction with a curare-like paralyzing agent gives the best results from the standpoint of the surgeon. After the patient is anesthetized, and with an intratracheal tube in place, the suspension laryngoscope is introduced. This step in the procedure is best accomplished if the operator uses a headlight to illuminate the field. It is important to introduce the blade of the laryngoscope in such a way that the tongue is kept in the midline. (Fig. 2) The upper teeth are protected with a sheet of heavy lead foil. The microscope is then brought into position and final adjustments of the suspension ap-

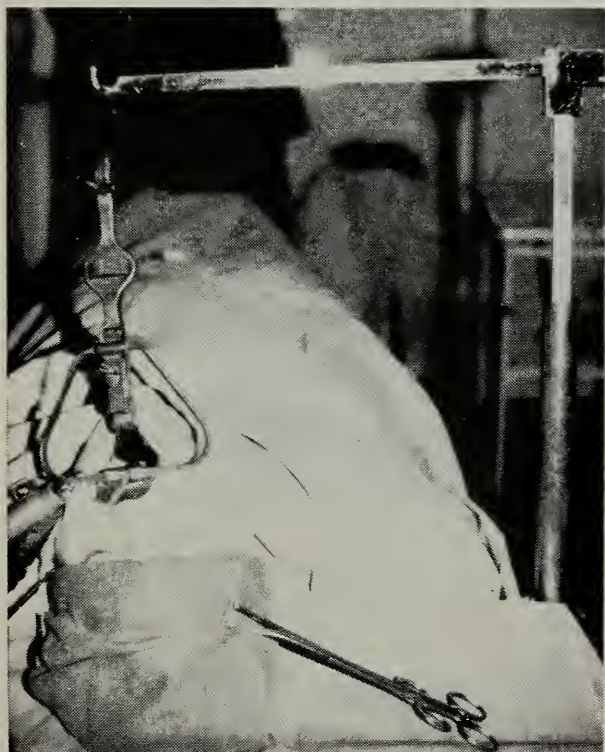


FIG. 2. Lynch suspension apparatus in position for exposure of larynx.

paratus are made after withdrawal of the intratracheal tube. (Fig. 3 and 4) At this

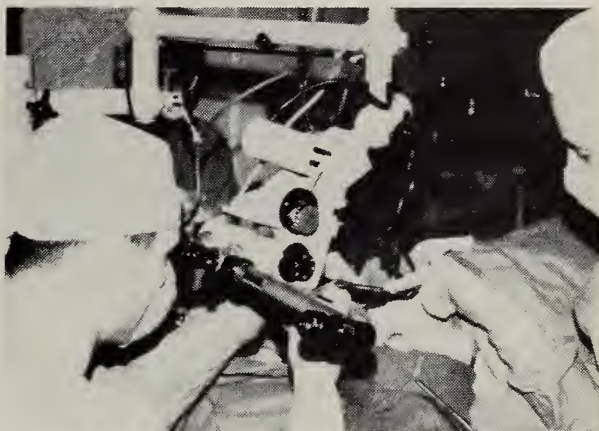


FIG. 3. Operation microscope and Lynch suspension apparatus in position for intralaryngeal surgery.

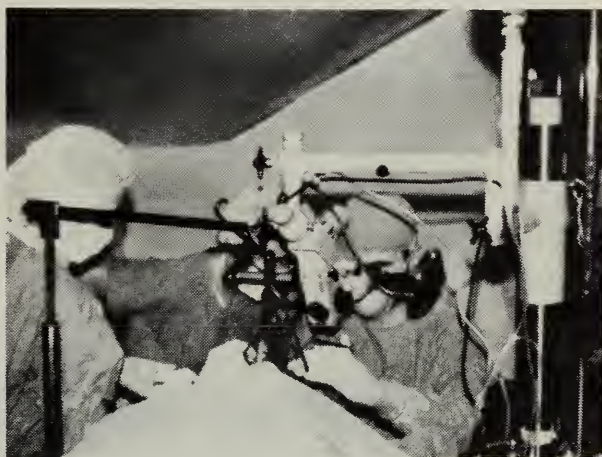


FIG. 4. View from foot of operating table showing Lynch suspension apparatus and operation microscope in position. Microscope is equipped with camera for intralaryngeal photography and observation tube for students.

point the patient is breathing spontaneously and the level of anesthesia and degree of paralysis are such that there is a tendency to laryngospasm, but the application of small amounts of a topical anesthetic by the anesthesiologist just prior to intubation will lessen this problem. With the excellent exposure afforded by this method, the anesthesiologist can reinsert the intratracheal tube any time it is deemed necessary.

Magnification of 6 or 10 times makes it possible to accomplish meticulously accurate removal of discrete benign neoplasms of the larynx, and it affords better visualization for the evaluation of lesions which are malignant or in which malignancy is

suspected. If there is a liability in this method it lies in the tendency of the operator to prolong the procedure because he can see so well and finds so many little areas to inspect and trim. Under magnification the familiar laryngeal instruments appear too large and cumbersome. Delicate laryngeal forceps are now being manufactured to meet the need and I am sure they are finding enthusiastic acceptance for removal of the small benign lesions of the vocal cords.

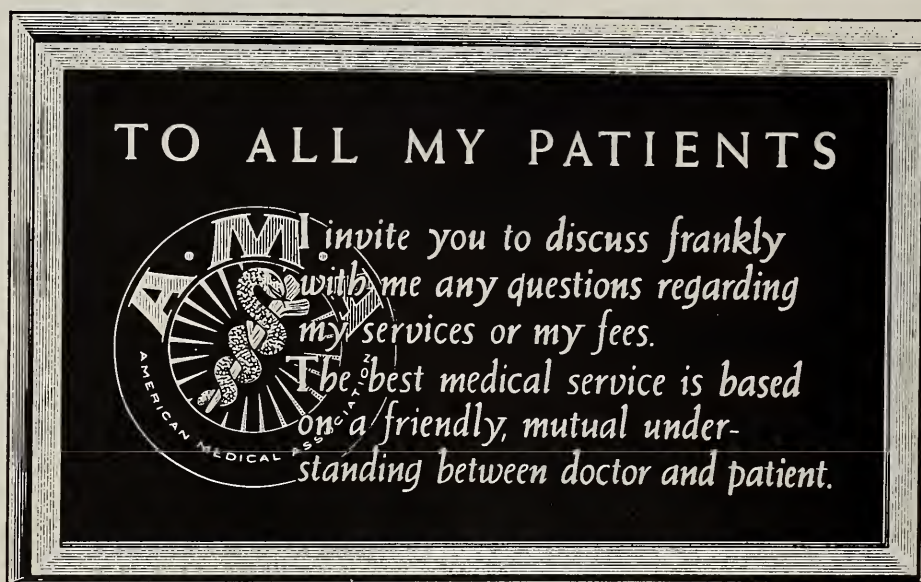
Summary

- (1) The combination of the Zeiss operation microscope, the Lynch suspension laryngoscope and modern general anesthesia are creating renewed interest in suspension laryngoscopy as an excellent means of studying and operating upon the larynx.
- (2) This method of exposing and operating upon the larynx is described.
- (3) It is hoped that this paper will stimulate the interest of laryngologists in the use of these instruments in this particular manner.

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CASE REPORT

Temporal Arteritis: An Ophthalmic Emergency*

John W. Wood, M.D., Lee R. Minton, M.D. and
James H. Elliott, M.D.† Nashville, Tenn.

Introduction

Temporal arteritis (giant cell arteritis) not infrequently, is a cause of a preventable, irreversible, bilateral blindness. As such, it has achieved the position of being the most important ophthalmic medical emergency, both diagnostically and therapeutically. Whereas, occlusion of the central retinal artery results in monocular blindness, unsuspected cases of temporal arteritis with ocular involvement (which may manifest itself as an occlusion of the central retinal artery in 10% of the cases) may result in irreversible loss of all vision in both eyes.

The purpose of this paper is to stimulate the physician's interest and awareness, and to emphasize the importance of the recognition of this entity. Since the initial manifestations are varied and subtle in many cases, the general physician, internist, neurosurgeon, neurologist or ophthalmologist may be the first doctor consulted. Early diagnosis coupled with institution of appropriate therapy prior to the onset of visual symptoms, prevents irreparable loss of vision. The case report presented below is an illustrative example of an unsuspected case of giant cell arteritis with vague clinical symptoms which resulted in total blindness in both eyes.

Case Report

On December 28, 1966, a 72 year old white man entered the Ophthalmology Out Patient Clinic at the Nashville Veterans' Administration Hospital complaining of visual loss in his right eye 7 days previously. At this time he had no-

ticed a "clouding over" of the vision in his right eye. His vision then deteriorated during the remainder of that day, and on awakening the next morning, he was blind in his right eye. He did not seek medical attention until 6 days later. He denied headache or discomfort in the temporal region, but vaguely described discomfort in the posterior cervical region 2 weeks prior to visual loss.

Examination revealed a pleasant, seemingly indifferent gentleman who denied light perception in his right eye. Visual acuity in the left eye was 20/50. The right pupil did not react directly, but did react consensually to light. The left pupil reacted directly but not consensually. Intraocular pressures were normal. Ophthalmoscopic examination of the right eye revealed engorged veins with sludging of the blood, and a pale disc. Although the retinal arterioles were narrowed, blood flow was intact. There were no hemorrhages or exudates. The left fundus was normal. The carotid pulses were full bilaterally, and there were no bruits in the neck. There was no tenderness or other evidence of inflammation of the superficial temporal vessels.

Because of the lack of an apparent underlying cause of the visual loss in the right eye, the patient was instructed to return one week later for further evaluation, or sooner if there was any further difficulty. The patient returned to the clinic 4 days later stating that he now had no vision in either eye. He described a "weakening" of the vision in his left eye 2 days earlier and stated the vision in his left eye "went out" over the ensuing hours. When asked why he had not returned earlier, he simply stated "I guess I should have."

Examination revealed no light perception in either eye. The patient seemed unconcerned and displayed no emotion over his blindness. Both pupils were fixed directly and consensually to light. The right fundus was unchanged from the previous examination. The left fundus revealed engorged veins with increased tortuosity and segmental narrowing. The disc margin was indistinct. The entire fundus was pale, and marked sludging of blood was observed in the veins. Circulation in the retinal arterioles was judged to be intact.

The patient was immediately hospitalized and given a retrobulbar injection on the left side of 2.5 ml of 1% lidocaine (Xylocaine) with hyaluronidase (Wydase). Inhalations of 5% carbondioxide for 10 minutes every 90 minutes were begun.

The WBC. count was 8,100, and the Hgb. 14 Gm. per 100 ml. The corrected sedimentation rate was reported as 4 mm. per hour (uncorrected 26 mm. per hour). The patient had a temporal artery biopsy on January 5, 1967. He was presented at the Ophthalmology Staff Conference at Vanderbilt University Hospital, and the majority thought that despite the normal sedimentation rate and atypical history, the most likely diagnosis was temporal arteritis.

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† From the Division of Ophthalmology (Surgery), Vanderbilt University School of Medicine, Nashville, Tennessee 37203.

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Prednisone 60 mg. per day in divided doses was begun immediately. The tissue diagnosis was subsequently reported as giant cell arteritis of the temporal artery. (Fig. 1)

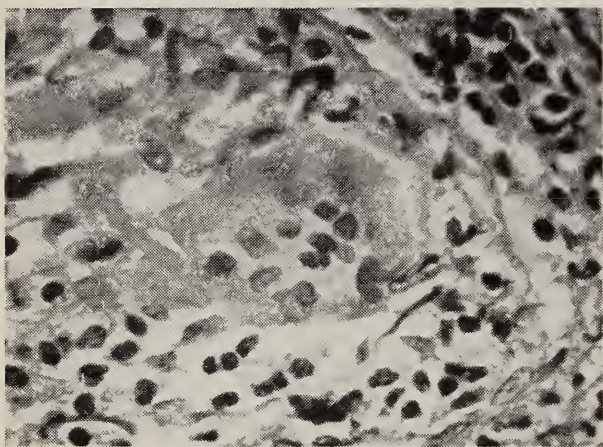


FIG. 1. Biopsy of temporal artery. Note multinucleated giant cell located in the media of involved artery. (H & E x 400.)

Steroids were continued at high levels, and in addition, the patient received 4 retrobulbar injections of methyl-prednisolone (Depo-Medrol) (20 mg. in 1 ml. of 1% lidocaine) during the subsequent 2 weeks. The patient regained no vision, although within several days following the initiation of steroid therapy there was a profound improvement in the patient's intellect and change in his affect. He became quite depressed over his blindness, and on questioning gave a preceding history very suggestive of temporal arteritis. His prior symptoms included anorexia, weight loss, generalized malaise, myalgia and moderately severe right frontal and temporal headaches.

Because previous case reports in the literature were uniformly associated with elevated erythrocyte sedimentation rates, the possibility of an erroneous laboratory report was investigated retrospectively. Careful checking revealed that the corrected sedimentation rate was erroneous and should have been reported as 17 mm. per hour rather than 4.

Comment

In its fully developed form, temporal arteritis is relatively easily diagnosed. As graphically illustrated in the present case report, however, the disease may frequently follow an atypical course and the initial and occasionally the only symptom may be impairment of vision. In its early stages, prior to clinical involvement of the temporal vessels and in cases where the prodrome is vague, mild, absent, or masked by mental confusion, the diagnosis may be impossible to establish. A published review of 175 cases of temporal arteritis revealed that

only 7% were referred with the correct diagnosis.¹ The majority were referred with neurologic signs and symptoms. Of these cases, 58% had ocular involvement. Considering the variable and unpredictable onset and sequence of events, temporal arteritis should be included in the differential diagnosis of all cases of sudden, complete or partial loss of vision in individuals over 50 years of age. In addition, temporal arteritis should be excluded when the history or mode of onset of visual loss suggests occlusion of the central retinal artery but the ophthalmoscopic findings are atypical.

Temporal arteritis is essentially an inflammatory vascular disorder of unknown etiology. A state of arterial insufficiency is created by granulomatous inflammation and intimal proliferation of the arteries. There is a predisposition for involvement of the medium sized arteries of the carotid and vertebral regions, although there has been documented involvement of numerous other arteries throughout the body. Curiously, intracranial arteries are seldom, if ever, involved. The basic ocular pathologic lesion in temporal arteritis is progressive occlusive disease affecting the central retinal artery, the central retinal artery to the optic nerve, the short posterior ciliary arteries or the ophthalmic artery itself, resulting most frequently in ischemic optic neuritis. In the cases where blindness is associated with minimal funduscopic lesions, involvement of the posterior ciliary arteries alone has been implicated. (Fig. 2)

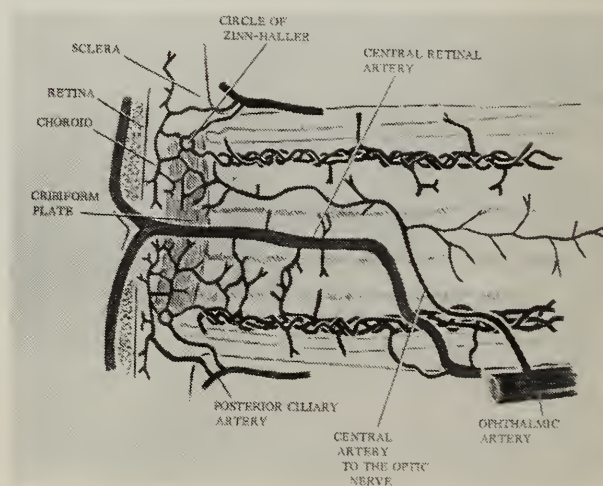


FIG. 2. Blood supply to the optic nerve and disc. (Adapted from Harrington, D. O., *The Visual Fields*, 2nd edition, 1964, The C. V. Mosby Co., St. Louis, Missouri.)

Histologically, there is a granulomatous reaction involving the artery, particularly the media with necrosis, fragmentation of the internal elastic membrane, and infiltration with mononuclear and multinucleated and giant cells. (Fig. 1) Both sexes are equally involved in the age group 54 to 84,² with an average age of approximately 67 years.³ Review of the literature reveals that at least 5 reported cases of what was called temporal arteritis in individuals between the ages of 19 and 30 have been reported, but most had atypical histories and were not proven by biopsy.^{1, 4-6} Most frequent signs and symptoms include headache, malaise, anorexia, weight loss, tenderness over the temporal artery, myalgia (muscle pain in the neck and shoulders, back and hips), mental confusion expressed as apathy or surprisingly philosophical acceptance of their blindness, arthralgia, fatigue, slight fever, pain in the temporal mandibular joint on eating or opening the mouth, and amaurosis fugax. (Tables 1, 2)

Table 1

APPROXIMATE FREQUENCY OF SYMPTOMS IN
TEMPORAL ARTERITIS

Headache	100%	Pain on eating	46%
Tender scalp	97%	Indigestion	43%
Malaise	97%	Depression	20%
Weight loss	71%	Vertigo	20%
Anorexia	69%	Sore throat	17%
Insomnia	60%	Diplopia	14%
Myalgia	57%	Mental	
Excessive		confusion	11%
sweating	43%	Epistaxis	6%

(Adapted from "Giant Cell Arteritis" by R. W. Ross Russell, Quart. J. Med. 28:471, 1959.)

Table 2

APPROXIMATE FREQUENCY OF SIGNS IN
TEMPORAL ARTERITIS

Tenderness of temporal arteries	91%
Fever	83%
Diminished pulsation of temporal arteries	60%
Absent pulsation of temporal arteries	23%
Necrosis of scalp	3%

(Adapted from "Giant Cell Arteritis" by R. W. Ross Russell, Quart. J. Med. 28:471, 1959.)

Approximately 50 to 55% of patients with temporal arteritis have ocular involvement, of which approximately a half will have bilateral visual symptoms.² Simultaneous involvement of the two eyes may occur, but

the usual sequence is unilateral visual loss followed in 1 day to 3 weeks by involvement of the fellow eye. The longest reported interval between an involvement of the first and second eye is 2 months. Ocular involvement may precede, be simultaneous with, or follow by several months the acute phase of temporal artery inflammation. The loss of vision is ordinarily out of proportion to the ophthalmoscopic findings. Once visual symptoms begin, progressive loss over the ensuing 12 to 24 hours is the rule, although in approximately 8% there is a sudden loss of vision, probably due to thrombosis of the central retinal artery with classical fundusoscopic findings of a cherry-red macula, and a pale fundus due to retinal edema.⁷ The usual fundusoscopic findings are slight to moderate papilledema, manifest as blurring of the disc margin and retinal edema, which may be difficult to recognize. There may be a few retinal hemorrhages, exudates or cotton wool patches. An altitudinal or segmental field defect is frequently demonstrable during the initial ocular involvement.

There may be pain over one or both temporal arteries. The artery may be very tender, the overlying skin inflamed, the artery pulseless, nodular, thickened or normal. Any patient with suspected temporal arteritis should have an immediate biopsy of the temporal artery for microscopic examination, regardless of whether or not the temporal artery symptoms or signs mentioned above are present. Furthermore, remembering that the arterial involvement is frequently "spotty," repeated biopsies should be performed when the presence of the disease is strongly suspected even though the initial biopsy report is negative. The most helpful confirmatory laboratory test is an elevated erythrocyte sedimentation rate. Some authorities state that it is significantly elevated in all cases and that an elevated sedimentation rate is a prerequisite to a diagnosis of temporal arteritis.⁸ In the present case, however, even after laboratory error was discovered, the corrected sedimentation rate was only mildly elevated (e.g. 17 mm. per hour). Thus far, there are no reported cases with a normal sedimentation rate. Other signifi-

cant laboratory findings are summarized in table 3.

Table 3

LABORATORY STUDIES IN TEMPORAL ARTERITIS

Elevated sedimentation rate (ESR)
Normocytic hypochromic anemia
Mild leukocytosis
Mild eosinophilia
Hyperglobulinemia

Every case of temporal arteritis, with or without ocular involvement, should be treated with corticosteroids systemically. Withholding steroids until a biopsy is obtained is not justified. The steroid dosage is regulated according to the age and clinical status of the patient as well as with sequential determinations of the sedimentation rate. The longest reported interval from the onset of headache to ocular involvement is 6 months.⁷ As a result, the suggested length of treatment is at least 6 months.

There is no evidence at present that anti-coagulants plus steroids are more effective than steroids alone. The efficacy of steroid therapy is suggested by a report stating that the incidence of bilateral blindness in temporal arteritis was three times higher and the incidence of blind eyes was 50% greater before steroids became generally available for therapeutic use.⁹ Vision may be lost despite steroid therapy and it is generally thought that once lost, vision will not return. There have been, however, occasional isolated reports of remarkable improvement after supposedly complete loss of vision in one eye.

Reported statistics dealing with the ultimate visual prognosis in proven cases of temporal arteritis are discouraging. Permanent loss of vision of varying degrees occurs in one or both eyes in 38 to 50% with a mean of approximately 40% of the patients.^{9,10} Twelve to 34% of the patients become blind in both eyes while 15 to 21% of the patients develop unilateral blind-

ness.^{11,12} The visual prognosis with early diagnosis and proper therapy may be vastly improved.

Summary

An illustrative case of temporal arteritis resulting in total bilateral blindness is presented. The significant signs, symptoms, laboratory findings, clinical course, visual prognosis and therapy are briefly reviewed. A high index of suspicion, proper diagnostic tests, and early initiation of appropriate therapy must be combined to circumvent disastrous visual complications.

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STAFF CONFERENCE

Bacterial Meningitis

Vanderbilt University Hospital*

DR. DAVID E. ROGERS: Recently we have had several patients on the Medical Service with bacterial meningitis. Because of the importance of proper therapy in various forms of meningitis, we would like to discuss this problem this morning. The first patient will be presented by Dr. New.

DR. PETER S. NEW: This 18 year old Vanderbilt student was admitted to Vanderbilt University Hospital on Oct. 26, 1966. A few days prior to admission he had noted a mild sore throat and on the day prior to admission developed a severe frontal headache and fever of 102 F. On the day of admission he was brought to the emergency room in a disoriented combative state and was found to have a stiff neck. His B.P. was 150/100 mm. Hg. and P. 104 per minute. The T. was 102.8°F rectally. There was bilateral sixth nerve weakness and an equivocal plantar response on the right side. Several petechiae were found on the dorsae of the feet. The W.B.C. count was 19,700 cu. mm. with 32% juveniles and 58% PMN. leukocytes. Lumbar puncture revealed that the cerebrospinal fluid had an opening pressure of greater than 400 mm. and a pleocytosis of 11,700 cu. mm. most of which were polymorphonuclear leukocytes. Spinal fluid protein was 715 mg. per 100 ml., and glucose was 10 mg. with a simultaneous blood glucose of 97 mg. per 100 ml. Gram stain of the spinal fluid revealed many intra- and extracellular gram negative kidney shaped diplococci. Cultures of the cerebrospinal fluid, blood, and throat, revealed *Neisseria meningitidis*, group C, sensitive to penicillin, chloramphenicol, and sulfadiazine.

The patient was begun on penicillin, 30 million units intravenously. On the following day a history of possible penicillin allergy was obtained. His organism was now known to be sensitive to sulfadiazine and his therapy was changed to Gantrisin, 6 Gm per day. Because of slow response, chloramphenicol was added to this regimen several days later. The patient had rapid clearing of the 6th nerve weakness and slow defervescence of his fever over the next 5 days. He was discharged from the hospital on November 10th, feeling well and without headache or fever.

Dr. Rogers: The second case will be presented by Dr. McGee.

DR. ZELL MCGEE: An 80 year old white man was admitted to Vanderbilt University Hospital on Nov. 8, 1966. Six years prior to admission lymph node biopsy was thought to show Hodgkin's disease and he was treated with nitrogen mustard. Except for several episodes of pulmonary infection, he had been in reasonably good health until 48 hours prior to admission when he had a shaking chill. On the following day he had more chills with fever, sweating, and a painful stiff neck. He was admitted to another hospital and treated for suspected pneumonia with tetracycline intravenously. He became increasingly obtunded and disoriented and was transferred to Vanderbilt University Hospital.

On admission the B.P. was 175/90 mm. Hg., P. 120, and T. 99.4°F. He had roving eye movements with slight blurring of the margins of the optic discs. There were no lymphadenopathy. A few rales and decreased breath sounds were heard at the right lung base laterally. Nuchal rigidity and Brudzinski's sign were present. The W.B.C. count was 42,000 with 78% lymphocytes, 14% polymorphonuclear leukocytes, and 8% juveniles. The PCV. was 34.5%. Lumbar puncture revealed an opening pressure of 250 mm. The cerebrospinal fluid was cloudy and contained 827 cells per cu. mm., 60% of which were polymorphonuclear leukocytes. Spinal fluid protein was 550 mg. per 100 ml. and glucose of less than 10 mg. Gram stain of the cerebrospinal fluid revealed gram positive diplococci. Cultures of the spinal fluid and the blood have been negative so far.

The patient was begun on penicillin, 20 million units intravenously per day. After 7 days of therapy he has remained disoriented and obtunded and continues to spike temperatures to 100°F. The bone marrow and peripheral blood smear are compatible with chronic lymphocytic leukemia and, in retrospect, this may have accounted for the abnormal lymph node biopsy 6 years previously. Skull x-rays and a brain scan revealed no evidence of sinusitis, mastoiditis, or brain abscess.

DR. ROGERS: Dr. Goodman will discuss the problems presented by these patients.

DR. JAY S. GOODMAN: During the past 3 weeks, we have had 5 cases of pyogenic meningitis admitted to our Medical Service. These 2 patients are representative examples which permit discussion of some selected aspects of this illness. First a word about gram stains. The gram stain is probably the single most important procedures which can be carried out on the spinal fluid. It should, therefore, be done carefully, preferably on the air-dried spun sediment. The configuration of the organisms is as im-

*From the Department of Medicine, Vanderbilt School of Medicine, Nashville, Tennessee.

portant as their color; meningococci tend to be bean-shaped and lie side by side while pneumococci are oblong or lancet-shaped and lie end to end. At times it is difficult to distinguish pneumococci from staphylococci, but if a drop of pneumococcal antiserum (omniserum) is added to a dried smear of the spinal fluid, pneumococci should demonstrate the typical capsular swelling reaction (Quellung).

Associated clinical findings will frequently be helpful in distinguishing which type of meningitis with which one is dealing. Sixty percent of patients with meningococcal meningitis will have a rash, which is usually petechial, and the lesions can be scraped, smeared, and cultured for demonstration of organisms. A history of pharyngitis favors meningococcal meningitis but does not rule out meningitis due to other organisms. Infection of the ears or sinuses, and/or head trauma is not infrequently seen in patients with pneumococcal meningitis but these are situations where one worries about staphylococcal disease also. The presence of pneumonia or alcoholism favors pneumococcal meningitis. When meningitis occurs in the presence of brain abscess or diabetes mellitus, unusual organisms should be considered.

The patients' age will favor certain causative organisms (Fig. 1). For instance, men-

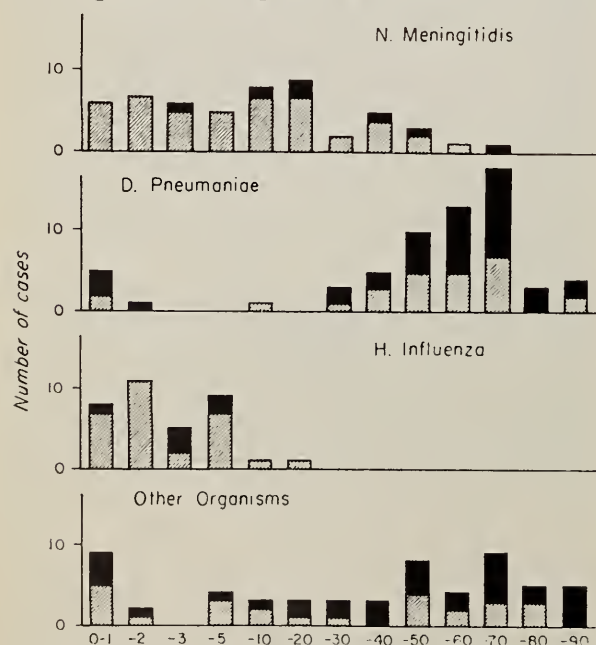


Fig. 1. Relationship of age to etiologic organisms in bacterial meningitis. (Reproduced by permission of the authors and the editors of the *American Journal of Medicine*—reference 3.).

ingococcal meningitis is a disease of children and young adults like our first patient, and the incidence falls off with increasing age. Pneumococcal meningitis favors the extremes of age and because it is more common in older adults this the most common type of meningitis we see on our Medical Service. Meningitis secondary to *hemophilus influenza* is extremely rare after the age of 5 years.

There have been certain recent epidemiologic changes in the pattern of meningococcal disease which are worth emphasizing. The meningococci can be sub-divided antigenically into four groups: A, B, C, and D. Group A meningococci have caused nearly all the major epidemics in the past and this organism was especially prevalent among the military populations of World War I and II. These organisms have also been exquisitely sensitive to sulfonamides which have been excellent therapeutic and prophylactic agents. Sulfadiazine has, in fact, been used as prophylactic agent to diminish the meningococcal nasopharyngeal carrier state among recruits entering our military installations over the past twenty years. But as early as 1942 some strains of group B and a minority of group C were noted to have a tendency toward sulfadiazine resistance. It is not surprising, therefore, that with the widespread prophylactic use of sulfadiazine, strains resistant to this drug would be selected out. In fact, since 1963, outbreaks of group B meningococcal infections have been occurring, initially on military bases, but subsequently among the general population. Thirty to 50 % of these strains have been demonstrated to be resistant to more than 0.5 mg. of sulfadiazine per 100 ml. Fortunately, meningococcal meningitis responds very well to penicillin therapy and with the increasing prevalence of sulfadiazine resistant meningococcal strains, penicillin has become the treatment of choice for this disease. Unfortunately penicillin, even in massive doses, is not an effective prophylactic agent against the meningococcal carrier state and there is no effective drug therapy for eradication of sulfadiazine resistant strains from the nasopharynx. It has been shown that an effective way of diminishing the carrier rate of meningococci on military bases is to in-

crease the living space allotted to each man. Overt meningococcal disease is quite uncommon unless the meningococcal carrier rate exceeds 50%.

The impact of antimicrobial therapy on mortality from meningococcal meningitis can be best appreciated by comparing the 32% mortality from this disease among the military during World War I to the 5% figure achieved during World War II.

In contrast, pneumococcal meningitis has proved a difficult therapeutic problem, despite the availability of antibiotics which one would expect to be very effective. This fact can be appreciated by a short review of the history of therapy for this disease. In the days of symptomatic therapy, Dr. William Osler found that 100% of his patients with pneumococcal meningitis expired. With the use of sulfadiazine in the 1930's mortality was cut to 70%. With the advent of penicillin the average mortality for pneumococcal meningitis dropped to 37%. Until 1949 standard therapy for this illness consisted of low doses of systemic penicillin combined with intrathecal therapy since it was known that penicillin did not get into the cerebrospinal fluid very well. In 1949, Dowling, Sweet, Robinson, Zellers, and Hirsh) showed that by treating their patients with 1 million units of aqueous penicillin every 2 hours they could achieve good cerebrospinal fluid levels of penicillin in all cases. They were able to reduce their mortality from 62% to 38% by using 12 million units of penicillin per day systemically, and the necessity for intrathecal therapy was thus obviated. One would think that with the higher doses of penicillin which we are now accustomed to giving intravenously for this illness (e.g. 20 to 30 million units) mortality would have declined even further, but this has not been the case. Mortality from pneumococcal meningitis still averages 37% and in four recent reported series mortality has been in the 60% range.²⁻⁵

It becomes clear from an analysis of the data that there must be certain combinations of host factors and features of pneumococcal meningitis which are not amenable to therapy with antimicrobials of any sort once the illness has progressed beyond a certain point, and it seems to do this all too frequently. After all, patients don't

usually die of this disease with infected spinal fluid. When one reviews the reported series of pneumococcal meningitis showing the highest mortalities, one finds that certain features seem to recur. Certainly patients of advanced age do not handle this disease well. The presence of coma, especially if it is profound and of unknown duration is a poor prognostic sign. The presence of a co-existing illness, alcoholism, or bacteremia all correlate with a poor outcome. Pneumococcal meningitis as a sequel to pneumococcal pneumonia implies bacteremia at some point during the illness. Statistically the presence of pneumonia correlates best with an increased mortality from pneumococcal meningitis, and this finding stands out in all the reported series regardless of the dose of penicillin employed.

One factor which has not been emphasized in the past but which is probably more important than generally realized is the type of therapy the patient has received prior to entering the hospital. This feature deserves some explanation. It has been known for some time that experimental pneumococcal and streptococcal infections in mice and in dogs respond poorly to penicillin therapy if the animals are first treated with tetracycline.⁶ It can be assumed that the bacteriostatic action of tetracycline interferes with the bacteriocidal action of penicillin which works best when organisms are actively multiplying and synthesizing cell walls. In 1951 Drs. Lepper and Dowling in a very careful study (7), showed that the mortality from pneumococcal meningitis in patients treated with a combination of penicillin and aureomycin was 79% in contrast to a group of patients treated with high doses of penicillin alone, where the mortality was 30%. This is probably the best known example of antibiotic antagonism in human disease. More recently Dr. Petersdorf, at the University of Washington,⁸ obtained serial cerebrospinal fluid samples from dogs with experimental pneumococcal meningitis and found almost no killing of pneumococci in the spinal fluid if chloramphenicol had been administered prior to penicillin. If penicillin and chloramphenicol were administered simultaneously, killing improved only

slightly. However, if penicillin was administered four hours prior to administering chloramphenicol excellent killing was achieved which was comparable to the effect of giving penicillin alone. From these findings Dr. Petersdorf predicted that if a patient is treated with a bacteriostatic agent for another disease he would probably do poorly if he happened to come down with pneumococcal meningitis soon afterwards. It should be noted that the second patient presented this morning received intravenous tetracycline for what was thought to be bacterial pneumonia, prior to his admission to the hospital with pneumococcal meningitis, and has done poorly so far. Another point worth making here is that tetracycline is no longer indicated for the treatment of pneumococcal pneumonia since there have been several reports of pneumonia due to tetracycline resistant pneumococci.⁹⁻¹¹ One of these, a fatal case, was reported from our institution last year.¹¹

Let us examine our own experience with pneumococcal meningitis at Vanderbilt Hospital to see how these factors add up. There have been 12 cases of pneumococcal meningitis admitted to our Medical Service from January 1960 to the present time (Table 1). Note that there was a preponderance of elderly adults and that the probable site of infection was unknown in six patients. In 4 patients pneumococcal meningitis had a cephalic origin and one patient had pneumococcal pneumonia. This patient was also an alcoholic. The usual findings of cerebrospinal fluid pleocytosis, hypoglycorrhacia, and elevated protein were present with rare exception. Most of the patients had a peripheral leukocytosis with four exceptions one of whom had leukopenia. Most of the patients were begun on multiple antimicrobials initially which always included 20 to 30 million units of penicillin per day intravenously. The other drugs were discontinued when the causative organism was isolated.

It is interesting to note that none of the first 10 patients in the series had received a broad spectrum bacteriostatic tetracycline-like drug prior to admission and that all of these patients survived. The last 2 patients did not have signs of meningitis when first seen by a physician but did have

signs of urinary tract infection and were therefore begun on tetracycline. They were subsequently admitted to the hospital with pneumococcal meningitis and were actually on tetracycline at the time. Pneumococci, cultured from their spinal fluids, were not tetracycline resistant. Note that both of these patients expired. These 2 patients may well have expired anyway, but since this information fits the experimental data concerning antibiotic antagonism so well I have chosen to exaggerate this point. The second patient presented this morning was also treated with tetracycline prior to admission and is doing poorly. He does, however, have significant underlying illness.

Question From the Audience: Do you think that penicillin alone is adequate therapy for a patient with meningitis due to an unknown organism?

DR. GOODMAN: In the majority of cases this will suffice, but if there are associated findings present such as sinusitis, otitis, or head injury, you should probably cover for staphylococcal disease as well. If you wish to add a bacteriostatic agent such as chloramphenicol it would be best to give this four hours after beginning penicillin.

Question From the Audience: What about the use of steroids as adjunctive therapy in pneumococcal meningitis?

DR. GOODMAN: In several studies the overall mortality seems to be unaffected by the addition of steroids to the patients' therapy. There is one study, however, that of Ribble and Braude, 1958,¹² where only one out of 12 patients treated with penicillin and corticosteroids expired. This series has subsequently been extended to 35 patients and the over-all mortality has been shown to be 35%.¹³ It is worth pointing out, however, that of the first 12 patients nearly all had bacteremia, coma, advanced age, or pneumonia; that is, factors known to be associated with a very poor prognosis. I would think, therefore, that there might be some advantage to using steroids in selected cases of pneumococcal meningitis, but they should not become part of the routine therapeutic regimen. Note that in our series of cases from Vanderbilt, two patients were treated with Prednisone. One of these was an alcoholic with overwhelming pneumococcal infection of the lungs and meninges,

Table 1

PNEUMOCOCCAL MENINGITIS, VUH, 1960—Nov. 1966									
Patient	Age	Probable Site	CSF			WBC	Prior Therapy *	Therapy **	Out-come
			Cells % Polys	Sugar	Protein				
1	51	Frontal fracture; sinusitis	2500 97	10	350	13,150	Pen Str	Pen Chl Sul	Survived
2	42	Otitis, mastoiditis	3095 97	50	148	21,700	—	Pen Chl Sul	Survived
3	15	Otitis, head injury	7850 85	46	552	36,800	Pen Str	Pen Chl Sul	Survived
4	15	Unknown	405 85	28	33	10,000	Pen Sul	Pen Chl Sul	Survived
5	62	Head injury	935 85	83	144	24,000	—	Pen Sul	Survived
6	55	Pneumonia (alcoholic)	78 78	5	185	1,700	—	Prednisone	Survived
7	30	CSF rhinorrhea	24,000 90	10	1390	16,400	—	Pen Meth	Survived
8	60	Unknown	4707 97	54	680	19,800	—	Pen Amp Meth	Survived
9	51	Unknown (alcoholic)	5600 90	10	240	8,300	Str Sul	Pen Meth Chl	Survived
10	76	Unknown	475 31	54	284	6,900	Kan Col	Pen Prednisone	Survived
11	26	Unknown	6800	10	760	28,500	TET	Amp Sul Chl Pen	Expired
12	85	Unknown	870 92	10	222	18,700	TET	Pen	Expired

*Pen=penicillin; Str=streptomycin; Sul=sulfonamides; Chl=chloramphenicol; Meth=methicillin; Amp=ampicillin; Kan=kanamycin; Col=colistin; Tet=tetracyline.
**Penicillin dose in hospital was 20 - 30 million units intravenously per day.

who survived. The other patient was an elderly lady who developed a left hemiparesis, aphasia, and other focal neurologic signs. She left the hospital without neurologic residual.

Question From the Audience: Were nasopharyngeal swabs obtained from the students living in the dormitory with the patient with meningococcal meningitis who was presented this morning?

DR. GOODMAN: Nasopharyngeal swabs were obtained on 50 students living in that dormitory. None of these were positive for meningococci, thus our patient represents a sporadic case of Group C meningococcal

meningitis and was not the index case of an epidemic.

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* * *

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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

State of Tennessee Medical Care Programs

● The Tennessee Medical Association has been approached by the Governor and Commissioners within his administration having to do with state sponsored health care medical programs administered by the Department of Public Health and the Department of Public Welfare. The meeting was held at the Governor's residence on August 27th. The discussion was relative to payment of physicians for services rendered under these medical programs.

The Governmental Medical Services Committee of TMA clearly stated the Association's position and policy that physicians' charges would be rendered on their usual and customary basis in all programs sponsored by government at any level. Representatives of TMA emphatically stated that a stipulated fee schedule could not be considered. It was pointed out by the Governor and his representatives that the state was interested in upgrading payments to physicians in all of its present medical programs wherein physicians would be reimbursed for their services in keeping with the existing Vocational Rehabilitation payment allowances.

The outcome of the initial conference was that a committee of the Governor's staff and a sub-committee of the Governmental Medical Services Committee of TMA, would meet to try and work out some of the involved details. It is realized that the General Assembly has not approved funds to pay physicians their usual and customary fees, although it was recommended that physicians make their usual and customary charges to the State under the various programs and in that way, the State could gather information as to what the program would eventually cost under the usual and customary payments to physicians. This matter is still under study and further information will follow. A verbal commitment from the Governor was made to the extent that when Tennessee goes officially into a Title XIX program, physicians would be reimbursed on the basis of their usual and customary charge.

TMA Committee Requested to Assist State in Emergency Services

● The Director of Tennessee's Health Mobilization Service has requested TMA's Committee on Disaster and Emergency Care to assist the State of Tennessee as follows: (1) To encourage community hospitals to accept custodianship of packaged disaster hospitals. These would be used to supplement existing hospital facilities for any major disaster. It was also urged that each county medical society establish a disaster medical care committee. (2) Requested the Committee to assist in stimulating interest in the hospital reserve disaster inventory, known as HRDI. This is designed to provide a 30-day reserve supply of essential medical items necessary for disaster medical care. (3) Help publicize the Medical Self-Help Program. (4) Assistance to stimulate more interest at the county medical society level in emergency health planning in each community.

Communications & PR Conference Highlights

● Recommendations and findings of more than 425 physicians and medical association representatives attending a recent Chicago meeting on medical activities and communications

included:

Medical Society activities should involve specialty and paramedical groups, hospitals, and allied health agencies; medical students, house staffs and new physicians should receive socio-economic, medico-legal and other pertinent information and guidance; concise, prompt summaries of important developments should be given physicians through direct mailings, newsletters, and bulletins; although the AMA News reports on all important medical and health matters, a front page summary in each edition would expedite communication; physicians should feel free to ask their medical societies for information, and also to make suggestions; the basic issues and problems involved in health care and its costs need to be better understood by most patients and many physicians; the best public relations programs have been medical and health activities involving young people; the most successful PR programs have been immunization and diagnostic projects, radio and television programs, and special news releases.

Correspondence About Taxes

● A physician who moves while he has a dispute pending with the Internal Revenue Service over taxes should make sure to file a change-of-address notice with the local IRS office. If he neglects to do so, according to a recent ruling of the Tax Court, the tax men can mail a notice of deficiency to the old address and make it legally binding even if the doctor never receives it. To be safe, tax advisors suggest, the address notice should be sent by certified mail.

Medicare Direct Billing Gets Congressional Boost

● If the U.S. House of Representatives' version of Medicare legislation is passed by the Senate, Medicare patients can be reimbursed for medical expenses by showing a physician's itemized statement (whether paid or unpaid). At present the patient must pay the bill before being eligible for reimbursement, and this has made it difficult for physicians to follow the TMA recommended policy to direct-bill Medicare patients.

Volunteer Physicians For Viet Nam Needed

● The Volunteer Physicians for Viet Nam Program, sponsored by the American Medical Association, is urging all states to assist in providing additional physician volunteers for a sixty-day period of service in Viet Nam. The program calls for the continuing recruitment of 32 volunteers every sixty days with the hope that this can be stepped up to 50 volunteers at the earliest possible time. Applications are especially needed from general surgeons, orthopedic surgeons, general practitioners and internists. This medical assistance program has done much to improve the image of American medicine and the American physician.

AMA Retirement Plan

● Frequent questions have been received relative to physicians' interest in the AMA's retirement program. Information about the plan is available from the American Medical Association Members' Retirement Plan Section, 535 North Dearborn Street, Chicago, Illinois, 60680. Physicians in Tennessee should address inquiries about the plan to Scudder Fund Distributors, Inc., P.O. Box 7092, Chicago, Illinois, 60680.

TURN PAGE TO SEE AMA'S STORY ON WHAT TENNESSEE PHYSICIANS ARE DOING.

The reprint appeared in the AMA publication "P R Doctor" which is distributed nation-wide to public service committees of state associations.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Hearings Held on PKU, Abortion Bills

● The Public and Mental Health Committee of the Tennessee General Assembly's House of Representatives conducted public hearings in Knoxville on two proposals pending before the committee and the 85th General Assembly. House Bill 989 would require physicians and hospitals to test every newborn for phenylketonuria. House Bill 931 would amend the statute pertaining to abortions to allow abortion in cases of rape and incest as well as to save the mother's life.

Testimony was presented on behalf of TMA opposing the mandatory requirement of the PKU legislation by Dr. John H. Saffold, of Knoxville, a member of the TMA Board of Trustees. Dr. Edwin L. Williams of Nashville presented the TMA statement relative to the abortion bill. Dr. Williams was appointed chairman of a special committee established by a TMA House of Delegates resolution directing a study of current laws pertaining to abortion.

Dr. Saffold called the committee's attention to the fact that TMA was not opposed to PKU screening but that physicians were opposed to legislation that tended to restrict medicine to practices and procedures which soon become obsolete. Dr. Saffold stated that, "testing of children at, or shortly after, birth for mental retardation is a desirable objective if the test is reliable, and the therapy is not implied by law, and if we can be confident that no injury is done to children who are mistakenly diagnosed. Unfortunately, at the present time it is not clear that any of these conditions are fulfilled."

Dr. Williams stated that no TMA policy had been developed to date on the question of abortions but that his study committee was at work and would make recommendations to the TMA House. The recently adopted AMA policy on the subject was outlined in detail for the committee.

AMA Legislative Council Meets

● The AMA's Council on Legislative Activities met in Atlanta September 23rd and representatives from surrounding states were invited to attend and observe the meeting.

The Council has adopted a new policy which will allow meetings to be conducted in various cities across the nation thus providing the opportunity for state association representatives to attend and to witness the council's actions.

Dr. O. Morse Kochtitzky, of Nashville, chairman of the TMA Legislative and Public Policy Committee and Dr. Tom E. Nesbitt of Nashville, Speaker of the TMA House of Delegates attended the meeting along with Jack Ballentine and Hadley Williams of the TMA staff.

Physicians Urged To Attend Rural Health Conference

● The fifth annual Rural Health Conference will be conducted October 25th in Memphis at the Rivermont Holiday Inn. Co-sponsored by TMA, The Farm Bureau and UT Extension Service, an excellent program has been arranged and all interested physicians are urged to attend the one-day affair.

Can You Spare A Dime, Buddy?

● The U.S. Chamber of Commerce reported recently that the federal government now spends \$273,020 every minute. While you were reading the first line of this paragraph, the federal government spent \$4,550. Wait a second and it will spend another \$4,550.

Based on the President's estimate that Federal expenditures during fiscal year 1968 will total \$143.5 billion, Rep. Clarence J. Brown, Jr. (R-Ohio) noted that the Federal Government is spending \$393,150,000 every day, \$16,381,000 every hour, \$273,020 every minute and \$4,550 every second.

"Thus," said Rep. Brown, "it takes the combined taxes of almost five average families to keep the Government operating just one second. It is estimated that to pay the interest on the national debt for one minute, the total Federal taxes of 28 average families is required."

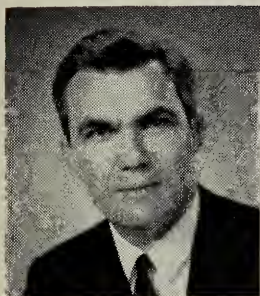
MEDICAL LABORATORIES APPROVED UNDER MEDICARE

The following is a list of medical laboratories in the State of Tennessee approved under the Medicare program. This list, furnished by the Regional Office of HEW in Atlanta, also shows the specialties for which each lab has been approved. Services rendered to medicare recipients may be reimbursed under the program only if the lab is on the approved list. Future additions and deletions may be made in the listing as a result of changes in the specialties in which a laboratory is qualified.

NASHVILLE	SP*	MEMPHIS	SP*
Pathologist's Laboratory	08	Associated Pathologist Foundation	08
2010 Church Street		858 Madison Avenue	
Medical Center Blood Banks, Inc.	08	Gladding Laboratory	08
2010 Church Street		81 Tillman Street	
Drs. Browne & Thomison	08	Moss-Farrow Pathology Laboratory	08
230-25th Avenue, North		257 S. Bellevue	
Physicians Laboratories	01, 03	Kauffman Medical Laboratory	01, 03
706 Church Street	04	1529 Union Avenue	04
Hooberry Clinical Laboratory	01, 04		
7th & Church Street		KNOXVILLE	
Wilson's Clinical Laboratory	01, 03	Children's Hospital Laboratory	08
2118 West End Avenue	04	1912 Laurel Avenue	
		Overholt Laboratory, Inc.	01, 03
		717 Cumberland Avenue	04
CHATTANOOGA		COLUMBIA	
Bruce A. Elrod, M.D.	06, 07	Pathologist's Laboratory	08
823 McCallie Avenue		Hatcher Lane	
Chattanooga Analytical Lab	01, 03		
859 McCallie Avenue	04		
Thomas R. Cox, M.D.	02, 04	ATHENS	
3661 Brainerd Road	05	Dr. Roy W. Epperson Lab	01, 03
Allied Laboratory	01, 03	100 Epperson, N.W., Box 357	04
736 McCallie Avenue	04, 05	McMINNVILLE	
		McMinnville Medical Lab	01, 03
BRISTOL		209 N. High Street	04
Hobacks Clinical Laboratory	02, 04	SHELBYVILLE	
422 No. 12 State Street		Union Street Laboratory	01, 03
Davenport Laboratory	02, 03	844 Union Street	04
104 Memorial Drive	04		

* Specialties Approved: 01—Microbiology 05—Immunohematology
02—Serology 06—Tissue Pathology
03—Clinical Chemistry 07—Exfoliative Cytology
04—Hematology 08—All (Clinical)

President's Page



DR. KRESSENBERG

One subject that has generated interest not only in the profession but among legislatures and the public is therapeutic abortion. Official action of the House of Delegates, directed that the Tennessee Medical Association form a committee to study the matter of therapeutic abortions extensively and bring a recommendation to the House for action. The Committee has been named and has had one meeting.

On September 21st in Knoxville, Dr. Edwin L. Williams, Chairman of the Study Committee, presented testimony with a statement relative to House Bill 931 which would amend the Tennessee Law pertaining to abortion. The hearing was conducted by the Public and Mental Health Committee of the House of the Tennessee General Assembly.

TMA's statement pointed out that the medical profession is vitally interested in the problem of therapeutic abortion. Medicine's primary interest is centered around the medical aspects of the problem recognizing that other factors, including ethical, moral and religious as well as legal, must also be considered.

The Tennessee Medical Association has not established any official policy on this question as yet, since this is the function of the House of Delegates. It has been pointed out that physicians in this state are in no way considering a liberalization of the state's *Criminal* abortion law, but the principal concern is with the medical aspects of therapeutic abortion.

The following was established as policy of the American Medical Association at its meeting in June in Atlantic City. The AMA's Committee on Human Reproduction recommended the following:

"Recognizing that there are many physicians who, on moral or religious grounds, oppose therapeutic abortion under any circumstances, the American Medical Association is opposed to induced abortion except when: (1) There is documented evidence that continuance of the pregnancy may threaten the health or life of the mother, or (2) There is documented evidence that the infant may be born with incapacitating physical deformity or mental deficiency, or (3) There is documented evidence that continuance of a pregnancy, resulting from legally established statutory or forcible rape or incest may constitute a threat to the mental or physical health of the patient; (4) Two other physicians chosen because of their recognized professional competence have examined the patient and have concurred in writing; and (5) The procedure is performed in a hospital accredited by the Joint Commission on Accreditation of Hospitals.

"It is to be considered consistent with the principles of ethics of the American Medical Association for physicians to provide medical information to State Legislatures in their consideration of revision and/or the development of new legislation regarding therapeutic abortion."

In adopting these guidelines, the House of Delegates of the AMA stressed that the rights of physicians to express contrary views and to practice their beliefs must be respected, but that the new policy in no way suggests that physicians or patients act contrary to their personal consciences. The statement was characterized as one which is "in keeping with modern scientific knowledge, contains necessary safeguards, and permits the physician to exercise his personal conscience and medical judgment in the best interest of his patient." These should be the overriding objectives in any medical decision.

The AMA House stated its belief that the policy "is a reasonable and conservative approach" which will provide medicine with a position of leadership in this important contemporary problem.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
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OCTOBER, 1967

EDITORIAL

PNEUMONIA CAUSED BY *ESCHERICHIA COLI*

One of the great changes brought about by the widespread use of antibiotic drugs has been the radical shift in the ecologic relations among the pathogenic bacteria that are responsible for the most serious and fatal infections. This has been particularly true of pulmonary infections which, up to the past 20 years, were caused usually by the acid-fast bacillus or the pneumococcus. Then, especially in hospital populations, the staphylococcus became an important etiologic agent in pneumonia and more recently the gram-negative bacillus has been implicated. Treatment with the usual antibiotics in these latter two groups has been less than satisfactory and, therefore, recognition of pneumonia due to these less common bacteria has become increasingly important.

The seriousness of gram-negative infections is now generally recognized.^{1,2} Most of these bacilli are usually nonpathogenic

since they are among the normal flora of the bowel. In recent years, because they attack the aged, the debilitated and the chronically ill, and those whose immune responses are naturally or artificially depressed, these organisms are referred to as "opportunistic pathogens." Tillotson and Lerner³ have reported 82 patients with pneumonia due to gram-negative bacilli seen in a single hospital during a 30 month period. Twenty of these patients had pneumonia due to *E. coli*. The criteria for diagnosis of the etiologic agent were strict so no doubt could exist as to which was the offending bacterium.

One or more serious chronic diseases were present in each case. These diseases involved the kidneys, heart or lungs. Diabetes mellitus was frequently present. The clinical picture was distinct from pneumococcal pneumonia and more closely resembled that seen in hemolytic streptococcal pneumonia except that the trachea and bronchi were intact. None of the patients had concomitant herpes labialis. About one-third of the patients had empyema which occurred about the sixth hospital day. Almost without exception leukocytosis with a shift to the left was observed.

At autopsy interstitial pneumonitis with mixed cellular infiltrates was found. Capillary engorgement, edema fluid within alveoli and deposition of fibrin along their walls was usual.

Multiple antibiotic resistance was commonplace. Patients who recovered had appropriate diagnosis and treatment, but patients with more serious underlying disease seemed more likely to die. On the basis of sensitivity studies, kanamycin was the drug of choice. However, because many of these patients had pyelonephritis, and at least subclinical diminished renal function, this drug had to be administered with caution.

The overall mortality of these pneumonias was 60% and it was of interest to note that empyema, unlike bacteremia, did not indicate a more serious prognosis. To the contrary, the mortality in patients with pneumonia was 37.5% and that in those without empyema 75 per cent.

It is essential that the possibility of *E. coli* as the etiologic agent in pneumonia be con-

sidered especially in patients having diabetes mellitus or other serious chronic disorders. Appropriate therapy must be started early to achieve a lowering of the anticipated high mortality rate.

A.B.S.

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TITLE XX ?

The trends to control the practice of medicine continue.

The latest gimmick is S.2299 introduced by Senator Long of Louisiana for himself, and Messrs. Nelson, Montoya and Morse as an amendment to the Social Security Act after Title XIX. It is designated as "Title XX—Quality and Cost Control Standards for Drugs." Having been read twice it has been referred to the Committee on Finance.

The bill calls for the establishment within HEW of a Formulary Committee which shall consist of 5 physicians not in governmental employ, and the Surgeon General of USPHS, the Commissioner of the Food and Drug Administration, the Director of the National Institutes of Health and the Commissioner of Narcotics serving *ex officio*.

This Committee under the law would compile and publish a Formulary of the United States for the States, hospitals, pharmacists and for the medical and dental professions. It would include drugs and biologicals included in the U. S. Pharmacopeia, National Formulary, the U. S. Homeopathic Pharmacopoeia and Accepted Dental Remedies. The Bill details specific definitions of "qualified drugs" or their combinations, authorizes the testing of drugs, and provides for petitions and hearings of manufacturers whose drugs or products have been excluded from the proposed formulary.

Furthermore, "the Secretary (HEW) shall establish and publish (and periodically revise so as to keep current) a guide showing the reasonable cost range of each

qualified drug and the names of suppliers of the products upon which the cost range for a qualified drug is based. . . ." Following this statement are several qualifying statements and many details.

The AMA reports that Dr. James L. Goddard, F.D.A. Commissioner, testified before the Finance Committee relative to the difficulties, administrative and judicial, which would arise from Senator Long's proposal. He is quoted as saying the measure would result in "encroachment on the practice of medicine in such a way that I believe the physicians of this country would rise up in wrath," adding that physicians have always selected drugs for their patients and would resist any attempt to alter their freedom to prescribe.

One would guess that the Finance Committee would be influenced by testimony from the FDA Commissioner, but the legislators of this day and age are an unpredictable lot. Political expediency and opportunism are major influences in the minds of politicians today. Crime and riots by-pass most voters, and even unhidden taxes leave some untouched. But health and medical care have an emotional appeal second to none and may seem to have a personal application.

We will await with interest the outcome of the deliberations of the Senate Finance Committee on the Social Security Amendments currently under consideration.

R. H. K.

SPECIAL ITEM

Presented by Dr. Morse Kochtitzky at the 11th Annual Meeting of the Medical Assistants Society of Tennessee, on May 6, 1967, in Nashville.

I found it a little difficult to organize this talk because I really feel that what I have to say is being addressed to the wrong group. I believe that some of the remarks I will make regarding the physicians' public relations should be made to the physicians rather than to this group of medical assistants. Even worse, is the fact that the medical assistants I need to reach are not those who are here today. The fact that you are here is evidence of the interest you have in



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your own organization and the proof that you are the ones who recognize problems and handle situations correctly. The girls we need to reach are those who are not interested, who are here, and who are not planning "to belong". The ones who look at their position as a job necessary to either make or help make a living, depending up on their marital state.

I am sure all of you realize that, as in an airplane flight, it is not the pilot, nor the ticket agent, who is responsible for one's opinion concerning the flight, rather, it quite obviously is the hostess—the way she treats you and the other passengers who provide the basis for your opinion of the airline. Likewise, the "hostess" in the doctor's office, whether she is a nurse, medical assistant, receptionist, secretary, technician, book-keeper or a combination of any or all of these, is often responsible for the opinion the patient has of the medical profession as a whole as well as of the individual physician.

What do we look for, then, in a medical assistant? I think too often the doctor looks for, and accepts too little. He actually needs the best qualified and trained office assistant it is possible for him to find. He needs the girl with the four A's:—Appearance, Ability, Attitude and Action.

What about her *appearance*—and I do not necessarily mean physical beauty, though I am quite sure no doctor was ever hurt by having an attractive aid! The real question is whether she is neat and clean; what do her fingernails look like, does she keep the office and equipment as clean as her person.

Ability, and by this I mean not just, is she smart, capable, and quick, etc.—but does she have an ability to get along with people! Does she understand that the average patient who comes in to my office is not average in any sense of the word. He is sick, he is worried, he is upset about his family or the cost of his unexpected illness. He may be resentful, and certainly the first person he encounters—the girl at the front desk—is the person at whom such a patient often lashes out in anger; the aid's ability to handle this kind of situation determines to a large extent not only the quantity but quality of the practice of the physician for whom she works. The ability to handle the

telephone, especially in certain specialties, is all important with respect to the doctor's practice. The ability to satisfy the patient, get the answers the patients needs and wants, and yet to keep the doctor from spending all day on the telephone is a real art and one which has to be worked at constantly to be performed satisfactorily. The ability to handle the patient with respect to his bill, or certainly in regard to misunderstandings about his bill, or any other grievance the patient may have against the physician, is one the girl must develop to meet problems with tact and diplomacy.

Obviously, I have included *attitude* and *actions* to some extent under our conversation about ability, and certainly the attitude and the action the aid takes with respect to the business side of the physician's practice is all important. The keeping of adequate and accurate records, sending correct statements at regular intervals, the handling of insurance forms, the willingness to fill out the numerous Medicare or other forms presented by the patient who is over whelmed by them, represent attitudes and actions of inestimable importance in your day to day work.

The public today very often forms an opinion of the doctor and medicine in general from the attitude and impressions gained through contact with related personnel. The nurses, technicians and office assistants often spend more time with the patient than does the physician. A basic public relations technic is that of doing a good job and telling the world about it in good taste, of course. I reduce this to a sort of formula called "good performance—publicly recognized." Sounds simple doesn't it. Well it isn't!

The biggest complaint physicians voice about medical assistants is the lack of interest or initiative in the job. This, of course, can be translated into pre-occupation with their private lives and private problems. Most doctors are dedicated people—their work is generally their life, and most expect those who work with them to show some of this same sense of dedication to their job. Actually is not this one of the marks of a real professional.

One of the most effective ways you can create a good public impression of your job

as a medical assistant is this:—To show pride in your job and to speak kindly of it. Let the people with whom you come into contact know that even though you do not practice medicine you are proud of your role as one on a medical team. A pleasing telephone personality, as well as how you greet and handle the patient in person is one of the most important ways you reach the public.

Some of the ways you can help the medical profession and improve your own public relations in the process are *first* to be loyal—actually speak up when someone maligns a physician or the profession. You know that many of the off-hand statements that are made are not true and it is worthwhile for you to say so. *Secondly*, be informed. When you are away from the office you are actually considered an authority on medical matters, just like the janitor in the bank is an authority on stocks and bonds among his own circle of friends. Know why we oppose certain legislation or know why hospital charges and cost are higher, know the issues facing medicine today. *Third*, be professional. Through the medical assistants association you have the opportunity to improve yourself and thus to do a better job of serving the public. *Four*, be of help. Never has medicine been challenged more severely than it has today. Certainly we are outnumbered by those who would destroy our system of medicine and substitute bureaucratic controls. You can well imagine how you will be called upon from time to time to help on many of the programs both legislative and in public relations. Of course we need your help. *Fifth*, be proud. Be proud of your role on the medical team that has added health and years to our lives, be proud of the team that seeks to destroy suffering, that has eliminated many of the scourges of mankind and that makes new advances against disease almost daily. Be proud of helping in a profession whose main goal is to get everyone well, and therefore to put itself “out of business,” so to speak.

Again I would say that I am making many of these statements to the wrong group. You here recognize and work at just the things I have related.

Some of the things I would like to call to

your attention as ways in which you can help the medical profession and which of course include your own profession, are some of the problems in public relations and communication that the Tennessee Medical Association has attempted to solve over the past few years. In this area I can speak with at least some minimal authority, having been Chairman of the Association's Public Service and Communications Committee for the last couple of years, and presently as Chairman of the Legislative Committee. You are all aware of the television programs that have been sponsored by the TMA and local television stations throughout the state. Many of your own doctors have been asked to help by being on these panels and have done so. Your publication and your association, as well as your individual contact with your doctor's patients should see to it that the public is informed of these programs. We need your help in such things as Community Health Week each October or November and the organization of and help with Diabetic Detection week.

One of the things I would like this group to do, as a state wide project, would be to actively promote a health careers program which encourages youngsters to enter health fields in all its related areas. Not just medical school but nursing school, laboratory technician training, medical secretary, receptionist training, x-ray technicians; all of the related and ancillary fields of medical personnel are woefully understaffed at the present time by smart, competent, well trained people, and we could certainly use your help in fostering these careers.

In another area I think your group could be of real assistance—the promotion of the pocket-health card that is prepared jointly and sponsored by TMA and the Tennessee Department of Public Health.

Of course, the main place of your help is in day-to-day public relations. We must all remember that those who would destroy our system of medicine would first destroy the image of medicine. If we put our own house in order, if we convince our patients by our deeds that their interests are paramount with us, then the American people will be less inclined to believe in those who

are dedicated to destroy medicine as a free institution. We must, therefore, appraise our own deficiencies and correct them, and must all be headed in the same direction with the unity of purpose.

We must, of course, remember that our prime reason for being is better care for our patients in every sense of the word.

IN MEMORIAM

Lawwill, Stewart, Sr. Chattanooga. Died 22, August, 1967, Age 75. Graduate of Vanderbilt University School of Medicine, 1915. Member of the Chattanooga-Hamilton County Medical Society.

Weinstein, Bernard Marx, Nashville. Died 27, August, 1967, Age 60. Graduate of Vanderbilt University School of Medicine, 1932. Member of Nashville Academy of Medicine.

Pollard, T. G., Nashville. Died 3, September, 1967, Age 89. Graduate of University of Nashville Medical Department, 1901. Member of Nashville Academy of Medicine.

Bender, Chas. A., Memphis. Died 27, August 1967, Age 73. Graduate of University of Tennessee College of Medicine, 1917. Member of Memphis-Shelby County Medical Society.

Alsobrook, W. L., Nashville. Died 31, August, 1967, Age 53. Graduate of Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C., 1944. Member of Nashville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane-Anderson County Medical Society

Dr. Richard A. Obenour, Knoxville, was the speaker at the dinner meeting of the Roane-Anderson County Medical Society, held August 29th in the Cafeteria of Oak Ridge Hospital. Dr. Obenour's presentation was entitled, "Practical Aspects of Pulmonary Function Testing."

Nashville Academy of Medicine Davidson County Medical Society

Dr. Kenneth L. Herrmann, chief of the Virus Exanthems Unit at the Communicable Disease Center, Atlanta, Georgia, gave the scientific presentation on "New Concepts of Infectious Disease in the Communi-

cable Disease Center", at the meeting of the Academy on September 12th.

Members attending the meeting, held in the auditorium of the Veterans Administration Hospital, also heard reports from Dr. Stanley Olson, director of the Tennessee Mid-South Regional Medical Program, and Dr. Charles Trahern of Clarksville, a member of the TMA Board of Trustees. Dr. Trahern reported on TMA and AMA activities and projects.

Memphis-Shelby County Medical Society

The Memphis-Shelby County Medical Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on September 5th. The program entitled "Tax Benefits Under H.R.-10" was presented by the Society's Retirement Trust Committee and members of the staff.

Knoxville Academy of Medicine

The Knoxville Academy of Medicine met on September 12th in the Academy of Medicine Building. The program, entitled "The Many Faces of Allergy" was presented by Dr. Robert Preston Hornsby.

NATIONAL NEWS

The Month In Washington

(From the Washington Office, AMA)

The American Medical Association strongly opposed a suggestion that doctors' fees under medicare be based on Blue Shield schedules. The suggestion was made to AMA officials while they were testifying before the Senate Finance Committee on the House-approved social security bill which includes amendments to the medicare and medicaid programs. Dr. Samuel R. Sherman, San Francisco, chairman of the AMA's Council on Legislative Activities, said there would be heavy opposition from the medical profession to any change from the present usual-and-customary fees.

Dr. Milford O. Rouse, president of the AMA, gave general approval to the bill

From a continuing study on nasal congestion...



timed to work while your patient does

A study being conducted by the Department of Otolaryngology, Greater Baltimore Medical Center is stockpiling evidence that points to the fast action and prolonged relief effected by Triaminic in the treatment of nasal congestion.

Begun in March 1966, the study to date has encompassed 85 patients with common nasal disorders—

and measured their response to recommended doses of Triaminic tablets.

Timed to release its oral nasal decongestant and two antihistamines within 8 hours, Triaminic was found to effect partial or complete relief in better than 82% of the subjects treated. Clearing nasal obstruction. Reducing turbinate swelling. Making breathing easier.

It's a comforting thing to know that Triaminic really works.

Triaminic[®] *timed-release tablets*

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride 50mg. Pyrilamine maleate..... 25mg. Pheniramine maleate..... 25mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets.

Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

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passed by the House which, he pointed out, incorporated a number of changes recommended by the AMA. He said further substantive changes better could await the knowledge that one or two more years of experience would bring. However, he urged that consideration then be given to major changes in Medicare Plan B which covers physicians' services.

"We believe it is possible for the Congress, the medical profession and others interested in the subject to develop a new mechanism for delivering medical care to people over 65 that would be consistent with existing private sector mechanisms", Dr. Rouse said.

"... the Congress realizes it has an open-end program with rising and perhaps uncontrollable costs. We believe that it is possible, and would be eminently practical, to devise another approach that could solve problems which beset Part B. One possibility, for example, might be to substitute for the Part B program a subsidy to all eligible persons, to be used for the purchase of private health insurance. Such an approach could have many advantages.

"The eligible over-65 patient would have a qualified private insurance program of his choice, at no greater expense than he has under the Part B Medicare program; carriers would have a greater responsibility for their own performance with an opportunity to exercise initiative; the physician would continue to deal with his over-65 patient in every respect in the same way as he did before the patient's birthday; and the Congress would have a program with defined costs, and one which would offer the nation a comparison of mechanisms in use to meet the problems of financing health care of the elderly."

Other points in the AMA testimony included:

—Beginning with the provisions of Title XVIII (Medicare), the (House) bill does not place the disabled of all ages under Medicare, as had been proposed earlier. We think the House acted wisely in establishing instead, a special Advisory Council to study the problems related to the inclusion of this group and to study the costs involved.

—In addition to the present method of

payment for physicians' services, the (House) bill provides two new options: either the physician can submit his itemized bill directly to the carrier, in which case payment of 80 percent of the reasonable charge would be made to him, providing the full charges does not exceed the reasonable charge, or to the patient at his direction; or the patient may submit the itemized bill and be paid 80 percent of the reasonable charge. From the program's inception, the AMA has urged that the payment be permitted on the basis of an itemized statement of charges.

—Outpatient hospital diagnostic services would be transferred to Part B of Title XVIII and be subject to the deductible and coinsurance features. This is in keeping with our recommendation to the House Ways and Means Committee that outpatient services be included under Part B, and so remove the administrative difficulty or distinguishing between therapeutic and diagnostic services.

—The bill eliminates both the requirement for initial physician certification for hospitalization of Medicare patients and the requirement for physician certification for outpatient hospital services. The AMA recommended the elimination of initial certification and the subsequent recertification. We continue to recommend the addition of this second step to eliminate the requirement of any certification, since any need in this regard will be satisfied by the work of the medical review or utilization review committee.

—We believe that physicians, having been brought under Social Security, should be accorded the same privilege and opportunity for reaching a fully insured status as was accorded other professional groups when they were included in the program. Accordingly, we urge this Committee to consider the adoption for physicians of an "alternative insured status" similar to that permitted by the amendments of 1954 and 1956 which brought into the program many new groups of people and professional self-employed persons, including lawyers. Further, we urge this Committee to consider amendments that would "drop out" an appropriate number of years for physicians

to make their eligibility for cash benefits both equitable and realistic.

—We must oppose the drug legislation offered before this Committee as amendments to H.R. 12080. We would suggest that rather than to enact such legislation it would be worthwhile at this time to study in depth, all the economic and therapeutic factors which enter into the use of prescription drugs.



The federal government has stepped up its campaign against cigarette smoking with the issuance of a new report and the appointment of a Lung Cancer Task Force. A second Public Health Service report on the subject summarizes three and one-half years of research and study into the health dangers of smoking. The Department of Health, Education and Welfare said the report confirms and strengthens the conclusions of a 1964 report. The second report provides new technical data on the relationship of smoking to cardiovascular, chronic bronchopulmonary disease, cancer and other conditions.

—Cigarette smokers have substantially higher rates of death and disability than their nonsmoking counterparts in the population. This means that cigarette smokers tend to die at earlier ages and experience more days of disability than comparable nonsmokers.

—A substantial portion of earlier deaths and excess disability would not have occurred if those affected had never smoked.

—If it were not for cigarette smoking, practically none of the earlier deaths from lung cancer would have occurred; nor a substantial portion of the earlier deaths from chronic bronchopulmonary diseases (commonly diagnosed as chronic bronchitis or pulmonary emphysema or both); nor a portion of the earlier deaths of cardiovascular origin. Excess disability from chronic pulmonary and cardiovascular diseases would also be less.

—Cessation or appreciable reduction of cigarette smoking could delay or avert a substantial portion of deaths which occur from lung cancer, a substantial portion of the earlier deaths and excess disability from chronic bronchopulmonary diseases, and a

portion of the earlier deaths and excess disability of cardiovascular origin.

Dr. Kenneth M. Endicott, director of the National Cancer Institute, is chairman of the Lung Cancer Task Force made up of 10 physicians and scientists. Dr. Endicott said that the group will concentrate on research for the development of a less hazardous cigarette, prevention of occupational cancer due to exposure of workers to cancer-causing substances in their working environment, and improvement of the present low lung cancer cure rate of 5 percent.

MEDICAL NEWS IN TENNESSEE

Tennessee Valley Medical Assembly

Dr. Philip Thorek, internationally known medical textbook author and surgeon, was one of the principal speakers at the 15th annual meeting of the Tennessee Valley Medical Assembly held in Chattanooga, October 2 and 3. Dr. Thorek, well known to the Chattanooga medical community, was on the Assembly's first program when it was organized in 1953 and has accepted invitations to return in 1958 and in 1964.

Other speakers and their subjects were: Dr. Carroll L. Wittin, Louisville, president of the American Academy of General Practice—"Medicare, What Does the Future Hold?"; Dr. B. H. Scribner, professor of medicine, Department of Urology, University of Washington School of Medicine—"Dialysis in Chronic Renal Failure"; Dr. John G. Boutselis, associate professor, Department of Obstetrics & Gynecology, Ohio State University College of Medicine—"Carcinoma in Situ of the Cervix"; Dr. Vernon Knight, professor and chairman of the Department of Microbiology, Baylor University College of Medicine—"New Studies on the Common Cold and Influenza"; Dr. Shields Warren, professor of pathology, New England Deacon Hospital, Boston—"Pathology of Cancer of the Thyroid and Its Relation to Radioactive Fallout"; Dr. Guy L. Odom, professor of neurosurgery, Duke University Hospital, Durham, N. C.—"Intracranial Bleeding of Nontraumatic Origin"; Dr. Louis K. Diamond, Department

of Pediatrics, Harvard University Medical School—"Blood and Blood Replacement, Benefits and Hazards"; Dr. Robert A. Robinson, chairman of the Department of Orthopedic Surgery, Johns Hopkins Hospital—"Anterior Fusion of the Cervical Spine"; Dr. James T. Grace, Jr. associate director, Roswell Park Memorial Institute, Buffalo, N. Y.—"Viruses and Neoplasms"; Dr. Henry N. Harkins, professor of surgery, University of Washington—"Development and Advantages of the Combined Operation for Duodenal Ulcer Incorporating Selective Vagotomy"; Dr. Harris D. Riley, Jr., professor of pediatrics, University of Oklahoma School of Medicine—"Measles Vaccine; Results of Studies and Use in Practice"; Dr. Edward D. Freis, Medical Investigator, Veterans Administration, Washington—"Treatment of Hypertension"; and Dr. J. Eugene Lewis, Jr., chief pediatric surgery, St. Louis University School of Medicine—"The Optimum for Elective Surgery in Children."

John Carmichael, sports editor of the Chicago Daily News, was guest speaker at the banquet held October 2nd in the Patten Hotel.

Advisory Committees Named To Fulfill State Medical Act

Appointments to an Educational Advisory Committee and a Technical Advisory Committee have been announced by the Commissioner of the Tennessee Department of Public Health. The purpose of the committees, established in compliance with Section 9 of the Tennessee Medical Laboratory Act, is to review and make recommendations for governing the training of laboratory personnel, and regulations of licensure of laboratory personnel and medical laboratories, including hospital laboratories, blood banks and independent laboratories.

The Educational Advisory Committee is headed by Dr. L. W. Diggs, professor of medicine at the University of Tennessee School of Medicine, Memphis. Dr. John R. Duckworth of Methodist Hospital in Memphis heads the Technical Advisory Committee.

Physician members of the Educational Advisory Committee are Dr. George R.

Mayfield, Columbia; Dr. John M. Woodward, Knoxville; Dr. Frank R. Blood, Nashville. Named to the Technical Advisory Committee were Dr. Thomas P. Potter, Jr., Johnson City; Dr. Dempsey B. Morrison, Memphis; Dr. Sarah H. Sell, Nashville; Dr. Addison B. Scoville, Jr., Nashville and Dr. Gordon H. Turner, Jr., Linden.

University of Tennessee College of Medicine

Research support in the College of Basic Medical Sciences for the fiscal year 1966-67 (ending June 30) totaled \$1,598,098, according to a summary compiled by Assistant Dean J. Sherman Davis. When projected on the basis of commitments for the next several years (some of the projects are programmed into 1970), the approximate grant total for the college is approximately \$5,332,000. Last year's allocation covered all departments in the college, involving approximately 45 members of the Basic Sciences faculty and a total of 91 different grants. The NIH funded 35 of the research projects as well as 20 training and administrative grants. A total of 36 grants were funded by a variety of agencies or foundations, including the American Cancer Society, Atomic Energy Commission, Easter Seal Foundation, state and local Heart Associations, National Science Foundation, others.



New Grants—A \$176,000 grant covering a three-year period has been awarded the Medical Units to finance a stepup in graduate training in diseases affecting the ear, nose, throat, face and neck. Recipient of the grant is the Division of Otolaryngology headed by Dr. Sam H. Sanders. Dr. Edwin N. Rise, assistant professor of surgery in otolaryngology, will direct the training program. The grant was awarded by the National Institute of Neurological Diseases and Blindness, a division of the U.S.P.H.S. The first year's allocation will be \$59,255, with subsequent years scheduled at the rate of \$55,000 and \$64,335.

Dr. Edward H. Storer, associate professor of surgery, has received a USPHS clinical cancer training grant in the amount of \$73,917.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. A brief precautionary statement follows.

Contraindications: Glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction.

Precautions: Use cautiously in the presence of hypertension, hyperthyroidism, coronary artery disease; warn vehicle or machine operators of possible drowsiness.

Usage in Pregnancy: Use cautiously, especially in the first trimester. *Note:* The iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake; discontinue 'Ornade' one week before these tests.

Adverse Reactions: Drowsiness; excessive dryness of nose, throat or mouth; nervousness; insomnia. Other known possible side effects of the individual ingredients: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, difficulty in urination. Thrombocytopenia, leukopenia and convulsions have been reported but no causal relationship has been established.

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is no
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Each capsule contains 8 mg. of Teldrin[®] (brand of chlorpheniramine maleate), 50 mg. of phenylpropanolamine hydrochloride, and 2.5 mg. of isopropamide, as the iodide.

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or all-night relief**



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Dr. Davis Knott, assistant professor of clinical physiology, and Dr. James Beard, assistant professor of radiation biology, have two new grants, one of \$26,000 for study of chronic alcoholism and a Tennessee Psychiatric Hospital contract for \$16,050.

New Faculty—Dr. N. Gene Lawyer, assistant professor of pediatrics; Dr. Dan A. Dunaway, instructor in dermatology; Dr. Sergio A. de Lemerens, assistant professor of pediatrics; Dr. Robert R. Hughes, associate professor of Obstetrics and Gynecology; Dr. Irwin J. Kerber, instructor in Obstetrics-Gynecology; Dr. Brett B. Gutsche, assistant professor of anesthesiology; Dr. John D. Simpson, instructor in anesthesiology; Dr. Michael C. McNalley, associate professor of medicine and director of the Cardiac Catheterization Laboratory; Dr. Donald Dick, professor of radiology; Dr. Howard H. Vogel, professor and director of radiobiology; Dr. Mellon A. Fry, Jr., assistant professor of radiology; and Dr. Richard Stout, fellow, pediatric allergy.

Vanderbilt University School of Medicine

Dr. John Pate, associate professor of human behavior, is one of three faculty members at Vanderbilt Medical School to receive grants that total \$86,999. The other two faculty members to receive grants awarded by the U. S. Office of Education, Bureau of Handicapped Children and Youth, were Dr. Warren Webb, associate professor of clinical psychology, and Dr. Sarah Sell, assistant professor of pediatrics.

The federal grant is for an intensive study of "The School Adjustment of Post-Meningitic Children." The research team plans to study children with a previous history of meningitis to check for any signs of damage that may affect their proper adjustment in school. It will be a two-year study involving approximately 50 children, ages six to nine.



Dr. John Lewis Simmons, former chairman of the division of urology at the University of North Carolina, has been appointed associate professor of urology, department of surgery. Dr. Simmons will

also serve as chief of urologic surgery at the Veterans Administration Hospital in Nashville.

PERSONAL NEWS

Citizens of Morrison designated August 12th as "**Dr. B. Campbell Smoot Day**" in recognition of Dr. Smoot's outstanding service to his community and country for many years.

Dr. B. F. Byrd, Jr., Nashville, research spokesman for the American Cancer Society's Tennessee Division, was featured speaker at the annual meeting of the Warren County Unit, American Cancer Society, on August 25th. Dr. Byrd is the delegate director on the National Board of the American Cancer Society, and is a past president of the Tennessee Division.

Dr. William Weathers, Jr. has joined the medical team of **Drs. Arch Bullard and Paul Johnson, Jr.** in Chattanooga. Dr. Weathers is a specialist in obstetrics and gynecology.

Dr. W. Walter Pyle of Franklin is serving a sixty-day period (September 11-November 9) as a volunteer physician in Viet Nam.

Dr. Guy C. Pinckley, Jamestown, has announced that his son, **Dr. Jimmie N. Pinckley**, will become associated with him in the practice of medicine.

The Knoxville Academy of Medicine has presented a plaque to **Dr. Ray V. DePue, Sr.** for 56 years of service to medicine in the community. Dr. DePue, a 1910 graduate of Lincoln Memorial University's medical school, has been a member of the local Academy since 1911.

Dr. W. Glenn Petty has opened offices for the practice of general surgery at Suite 415, Doctors Building, in Chattanooga. A graduate of the University of Tennessee, Dr. Petty earned his M.D. degree from the Emory School of Medicine in 1955.

Dr. Thomas F. Frist, Nashville, was the featured speaker at a meeting of the Lawrence County Heart Association on August 3rd.

Dr. G. Baker Hubbard, Jackson, has been appointed to the Tennessee Commission on Aging by Governor Buford Ellington. Dr. Hubbard's appointment became effective July 1st.

Dr. Tom C. Wood has been named chief of the medical staff at Henry County General Hospital. Other officers are **Dr. Kenneth Ross**, vice-chief; **Dr. J. Ray Smith**, Secretary, and **Drs. I. H. Jones** and **Joe D. Mobley**, executive committee members.

Dr. Martha McDonald has opened offices for the practice of internal medicine with a special interest in endocrinology at 1010 East Third Medical Building, Chattanooga. Dr. McDonald attended the University of Chattanooga and is a graduate of Rollins College, Winter Park, Florida. She received her M.D. degree from Woman's Medical College of Pennsylvania in Philadelphia.

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desired diuretic action—vascular decongestant—
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Each tablet contains:

2-amino-2-methyl-1-propanol 8-bromotheophyllinate (Pamabrom*)	50 mg.
Pyrilamine Maleate	30 mg.

COMPOSITION: Bromaleate is a mixture containing a ratio of approximately 2 molecular weights of the compound Pamabrom (2-amino-2-methyl-1-propanol 8-bromotheophyllinate) to 1 molecular weight of pyrilamine maleate.

CAUTION: Federal law prohibits dispensing without prescription.

ACTION AND USES: This improved product was developed by Brayten specifically for the control of premenstrual tension. This

*U.S. Patent 2711411;
Patented 1955, Canada

condition is characterized by nervousness, irritability, weight gain, breast tenderness, backache, etc., during the premenstrual period.

ADMINISTRATION AND DOSAGE: In premenstrual tension, 2 tablets twice daily (morning and night) beginning when symptoms are expected, usually 5 to 7 days before menstruation. Stop medication at onset of flow.

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SIDE EFFECTS: Clinical investigation has shown Bromaleate, when taken in proper dosage, to be remarkably free from side effects. However, if drowsiness or dizziness is reported, reduce dosage. Caution hypersensitive patients against driving an automobile or operating dangerous machinery on the days medication is taken.

HOW SUPPLIED: Bottles of 100 (light blue) Tablets.



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SIDE EFFECTS: Theophylline may cause central nervous system stimulation such as insomnia, restlessness, or irritability. Theophylline can cause gastric irritation with nausea and vomiting.

PRECAUTIONS: Should not be used more than every 4 to 6 hours. Should not be given within 12 hours following rectal administration of theophylline or aminophylline. Do not use when cough preparations containing theophylline or aminophylline are being administered. Because of the diuretic

effect of Theophylline, children under four years of age should be watched for signs of dehydration. Caution is indicated in patients with severe renal and hepatic disease, myocardial damage, hyperthyroidism, and glaucoma.

DOSAGE: The size, frequency, and duration of dosage must be determined by the physician in each individual case. Clinical data lead to suggested doses as follows:

GLYNAZAN TABLETS, uncoated, 5 grains (equal to 2½ grains Theophylline N.F.): Adult dose—1 to 3 tablets every 4 to 6 hours; preferably administered with water after meals.

GLYNAZAN ELIXIR (contains alcohol 15%): A palatable elixir containing Glynazan 5 grains (equivalent to 2½ grains Theophylline N.F.) per 5 cc. teaspoonful.

Children over 12 years: ½ to 1½ teaspoonfuls every 4 to 6 hours. • 6 to 12 years: ½ to 1 teaspoonful every 4 to 6 hours. • 3 to 6 years: ½ teaspoonful every 4 to 6 hours. • 1 to 3 years: ¼ to ½ teaspoonful every 4 to 6 hours. • Adult dose: 1 to 2 teaspoonfuls every 4 to 6 hours.

HOW SUPPLIED: Tablets—Bottles of 100 and 1000, Elixir—Pint and gallon bottles.

Another Established Need Product from **First Texas Pharmaceuticals, Inc.** /DALLAS

Dr. D. M. Spotwood, Pulaski, has been named to the State Board of Education by Governor Ellington. Dr. Spotwood succeeds Dr. Harold West who resigned because of ill health.

D. Harmon L. Monroe, Erwin, **Dr. Charles W. Davis**, Humboldt, and **Dr. H. Stratton Jones** of Harriman, have been re-elected to active membership in the American Academy of General Practice. Re-election signifies that the physician has successfully completed 150 hours of accredited postgraduate medical study in the last three years.

ANNOUNCEMENTS

Calendar of Meetings, 1967-68

State	
Nov. 1-3	Tennessee Academy of General Practice, 19th Annual Scientific Assembly and Congress of Delegates, Gatlinburg Auditorium, Gatlinburg
Nov. 16	Middle Tennessee Medical Association, Fayetteville
Feb. 14-16, 1968	Mid-South Postgraduate Medical Assembly, Memphis
National	
Oct. 27-30	Association of American Medical Colleges, New York Hilton, New York
Oct. 29	American Association of Ophthalmology, Palmer House, Chicago
Oct. 29-Nov. 1	American College of Gastroenterology, Biltmore Hotel, Los Angeles
Oct. 29-Nov. 3	American Academy of Ophthalmology & Otolaryngology, Palmer House, Chicago
Nov. 5-8	American Society of Plastic and Reconstructive Surgeons, Waldorf-Astoria, New York
Nov. 9-11	Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas
Nov. 13-16	Southern Medical Association, Miami Beach, Florida
Nov. 16-18	Western Surgical Association, Ambassador Hotel, Los Angeles
Nov. 25-26	American College of Chest Physicians (Interim Clinical Meeting) Houston, Texas
Nov. 26-29	American Medical Association (Clinical Convention) Houston
Dec. 2-7	American Academy of Dermatology, Palmer House, Chicago
Dec. 4-6	Southern Surgical Association

Jan. 19-20, 1968	The Homestead, Hot Springs Va.
Jan. 20-25	American Society for Surgery of the Hand, Palmer House, Chicago
Jan. 29-31	American Academy of Orthopaedic Surgeons, Palmer House, Chicago
Feb. 3-7	Society of Thoracic Surgeons, Roosevelt Hotel, New Orleans
Feb. 6-10	American Academy of Allergy, Statler-Hilton, Boston
Feb. 8-10	American College of Radiology, Drake, Chicago
Feb. 8-10	Society of University Surgeons, Americana, New York
Feb. 19-21	Southwestern Medical Association, Sheraton-El Paso Motor Inn, El Paso, Texas
Feb. 22-24	American College of Surgeons Sectional Meeting, Statler Hilton Hotel, Dallas
Feb. 28-Mar. 3	Central Surgical Association, Sheraton-Cleveland, Cleveland
March 1-3	American College of Cardiology, San Francisco Hilton Hotel, San Francisco
March 11-13	American Association of Pathologists and Bacteriologists, Drake Hotel, Chicago
March 18-20	American College of Surgeons (Sectional Meeting for Doctors and Nurses), Williamsburg Inn, Williamsburg, Va.
March 24-30	American Academy of Pediatrics, Regency Hyatt House, Atlanta
March 25-28	American Society of Clinical Pathologists (Interim) Roosevelt Hotel, New Orleans
March 25-29	Southeastern Surgical Congress, Sheraton-Park Hotel, Washington, D.C.
March 29-31	American College of Allergists, Denver Hilton, Denver
	American Society of Internal Medicine, Hotel Statler, Boston

Rural Health Conference

The 1967 Rural Health Conference, sponsored by the Tennessee Medical Association, the University of Tennessee Agricultural Extension Service, and the Tennessee Farm Bureau Federation, will be held October 25th at the Holiday Inn—Rivermont in Memphis. The interesting, informative program will include such topics as "AMA's Rural Emergency Care Plan"; "If Disaster Strikes", a film narrated by Danny Thomas; "Medical Self-Help Program in Tennessee"; "Poisons"; "Medical Careers in Tennessee"; "The Farmer's Interest in Rural Health and Safety"; and "Health Legislation before Congress (Titles XVIII and XIX of P.L. 89-97)."

Interested physicians are urged to attend.

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AMA Clinical Convention November 26-29—Houston

A scientific program especially designed for the physician in practice again will be featured at the AMA's Clinical Convention in Houston, November 26-29. The four-day meeting will include scientific sessions on 18 major topics, four postgraduate courses, breakfast roundtable conferences, closed-circuit television and medical motion picture programs, and more than 150 scientific exhibits.

Of special interest are the postgraduate courses, expanded to four topics: Fluid and Electrolyte Balance, Oncology, Cardiovascular Disease, and Obstetrics and Gynecology. Each course will consist of three half-day sessions featuring outstanding teachers.

Scientific and industrial exhibits and all scientific meetings will be in Houston's new Astro Hall, a part of the Astrodome complex. The House of Delegates will be held in the Shamrock-Hilton Hotel.

Topics at the general scientific sessions include: aerospace medicine, antibiotics, arthritis, cancer, cardiovascular medicine, cardiovascular surgery, dermatology, endocrinology, gastroenterology, general surgery, genitourinary treatment, geriatrics, obstetrics and gynecology, ophthalmology, otolaryngology, pediatrics, and psychiatry. There also will be a session on "new cares" featuring a discussion of legal and social problems now faced by the physician.

Breakfast Roundtable Conferences will discuss (1) Indication and Limitation of Uses of Antibiotics, (2) "The Moral and Ethical Aspects of Caring

for the Dying Patient", (3) "Management of Cerebrovascular Insufficiency", and (4) "Adolescence, Age of Rebellion; Some Related Psychiatric Aspects". Numbers 1 and 2 will be Tuesday morning, November 28; Numbers 3 and 4 will be Wednesday morning, November 29. Tickets will be \$3 each.

An outstanding program of closed-circuit color television and more than 25 medical motion pictures will be presented. Live, color television broadcasts of surgery and discussions from Houston's Hermann Hospital will be seen on a large screen in Astro Hall. Medical motion pictures will include three or four premier showings, plus several films that were well received at the AMA annual convention last June.

International Congress of Lymphology

The 2nd International Congress of Lymphology will be held March 15-20, 1968, at the Fontainebleau Hotel in Miami Beach, Florida. The basic themes of the Congress are: (1) Basic lymphology, (2) Lymphatic system in cancer, and (3) Experimental lymphology. Latest advances in various aspects of the lymphatic system will be presented by an international faculty which will include 40 guests speakers from abroad. A total of 45 hours of conference time, over 100 papers, 16 general discussions and 16 symposia will be presented.

For additional information write Manuel Viarmonte, Jr., M.D., professor of radiology and Coordinator of Postgraduate Medical Education, University of Miami School of Medicine, 1450 N.W. 11th Avenue, Miami, Florida.

* * *

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T M A

THE VIEWING BOX

The Image of the FDA

In a mid-1966 speech, FDA Commissioner James L. Goddard said that the FDA has surveyed 4,200 drug samples in 20 major therapeutic categories and all collected by FDA field offices. He added that 7.6 percent of the products tested "deviated to a material extent from declared potency." On the basis of this survey, Dr. Goddard concluded that "one out of every 14 drug units manufactured is violative just on potency alone." If true, this would be an alarming bit of news and it was of more than momentary interest to the Pharmaceutical Manufacturers Association. The PMA immediately set out to learn more about the FDA survey—and this brings us to the point of this editorial.

We would expect that a copy of this survey would be instantly available to the PMA. We would be hard put to name an industry that is more concerned with quality control than the pharmaceutical industry, represented by the PMA. Certainly a letter to the FDA, asking for a copy of the survey results, should merit an immediate, positive response.

Accordingly, the PMA wrote to the FDA—on August 22. Said the FDA in its reply, "We . . . will be in touch with you later." On August 25, the PMA wrote another letter—and received a similar reply. On October 17, the PMA wrote a third letter stating, "We believe it is most important to obtain meaningful information on the performance of drug manufacturers of various kinds, so that mutual efforts can be put forth by the industry and the FDA to raise the level of quality of the drug supply as high as possible." From the FDA—no answer.

On December 1, the PMA wrote its fourth letter to Dr. Goddard and asked specifically about the nature of the survey's sampling technique or design, the source of the samples, the lot or control number of the prod-

ucts found to be subpotent and the method of analysis. Again, no answer.

Meanwhile, in an October 29 speech, a deputy undersecretary of HEW referred to the elusive survey and added that "the study was not a model of careful design anyhow." This must have already been suspected by members of the PMA staff.

During all these months, the FDA was distributing news releases—citing the survey's "results." In the words of PMA President C. Joseph Stetler, the FDA kept "replaying the same tired number game which it started June 8"—almost eight months earlier.

Finally, on February 1, the PMA received a brief letter and a list of the products examined by the FDA. The letter did not include (a) the lot or control numbers requested by the PMA or (b) any of the other information requested in the four letters written by the PMA.

This is a sad story—and there's a sequel to it. On March 16, almost a year after Dr. Goddard's first mention of the survey results, *he himself* told the Pharmaceutical Wholesalers Association that the survey "cannot and should not be projected for the industry." This strikes us as being a direct about-face, executed by a top-level government official who had earlier concluded that "one out of every 14 drug units manufactured is violative just on potency alone."

We have earlier taken a dim view of the FDA's apparent willingness to promote its views in the public press. We do not question the FDA's right, or the right of any man or agency, to tell its story in a manner it alone prescribes. But we seriously question the merits and propriety of indicting an industry publicly—and then denying that industry full access to the facts, *all* of the facts.

In recent months, the Central Intelligence Agency has been under fire—for its financial support of nongovernment organization activities. We are not suggesting that the FDA should be the target of a similar barrage but we do feel that a few of its activi-

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ties should be public knowledge and we propose to mention them here.

The FDA now subsidizes a newspaper column that discusses drug product, advertising regulations, health care devices, etc. The reader does not have any way of knowing that this column is financed by the FDA.

The FDA is also reportedly "cooperating" with the Tele-Med Corporation of New York, a firm that offers its subscribers "a daily telephone news service . . . with advance information from all FDA departments." The programs feature interviews with FDA officials and discuss such subjects as new drug applications, new drug approvals, drug recalls, advertising, food, cosmetics, etc. It would thus seem that the FDA has a substantial interest, of one kind or another, in the activities of the Tele-Med Corporation.

These activities are described by Mr. Stetler as a "rather exotic approach to the transaction of the public business." We agree.

The FDA also publishes and sells a magazine called *FDA Papers* and serious question has been raised regarding the legal propriety of such a publication, one which Mr. Stetler says is being used "to color and promote the image of the FDA . . . while denigrating the drug industry."

These activities are the activities of an

agency which insists that drug products shall be clearly and fully labeled. We wonder how many readers of the newspaper column, distributed to 400 tradeunion newspapers under the heading "Good and Welfare," know that it's FDA-sponsored. It is most certainly not "clearly and fully labeled."

We would like to close with a quote taken from Mr. Stetler's recent report to PMA members. Said Mr. Stetler: "Basic moral and ethical questions are raised by this kind of official surreptitiousness, questions to be carefully considered by the news media as well as by citizens generally who are concerned with receiving untainted news of their government's activities. . . . We are unaware of any statue which contains authority, expressed or implied, for an agency to spend public funds to publish apparently independent opinions of its performance or its positions on matters with which it deals."

We get a trifle weary, from time to time, with endless congressional investigations—and we're not suggesting that one is needed now. We do submit, however, that it's again time for the FDA to take a long look at its own activities—and seek to serve the public in an open and above-board manner.

* * *

Our American heritage is threatened as much by our indifference as it is by the most unscrupulous office or by the most powerful foreign threat. The future of this Republic is in the hands of the American voter.—Dwight Eisenhower.

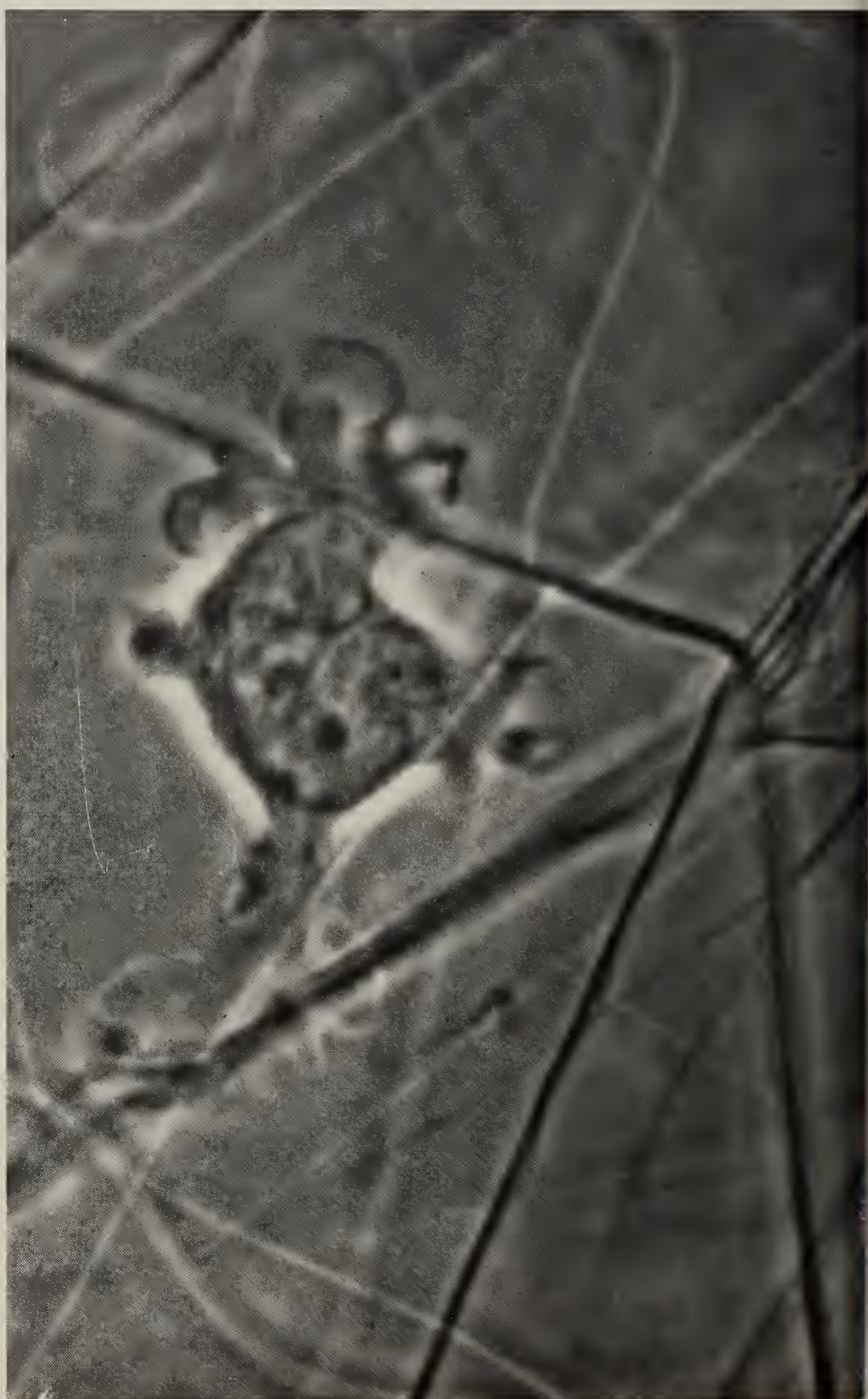
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Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

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The author emphasizes the surgical principle of combatting fecal soilage of the peritoneal cavity by prompt intervention. Antibiotics have not altered this primary consideration.

Perforation of The Large Bowel

MALCOLM R. LEWIS, M.D., Nashville, Tenn.

Perforation of the colon, from whatever cause, continues to be a potentially lethal event. The old surgical adage that "continued fecal soilage of the peritoneal cavity is not tolerated" is no less true in the antibiotic era. An isolated episode of fecal soiling can be survived, but unrelenting contamination is very often fatal. Perforations occurring beneath the peritoneal reflection are less likely to be fatal, but often result in serious difficulty, nonetheless.

The time-honored principles of management of perforation of the large bowel still pertain and have been changed only in degree by the advent of antibiotics. There has been in recent years greater willingness to resect the colon primarily in acute situations, but exteriorization or proximal colostomy remain the mainstay of emergency care. These principles are demonstrated in the 14 patients reported here; these are patients with perforation of the large bowel seen and operated on by the author over an 11 year period. Certain problems peculiar to the care of these patients have become apparent and will be emphasized.

Traumatic Perforation

Injury from an external source which results in perforation of the large bowel is necessarily violent and allows no time for the surrounding tissues to rise to the defense and wall off the area involved, as occurs with inflammatory perforations. One of the fatalities in this group of patients occurred in the category of traumatic perforation (see chart). This was a workman struck in the abdomen by a wire cable with resulting penetration of the transverse colon. When first seen by a physician the seriousness of his injury was not recog-

nized, and he was treated conservatively with rest and antibiotics. The patient was hospitalized 24 hours later when fever was recognized, and a foul smelling discharge appeared from the pinpoint perforation of his abdominal skin. Even at this time no signs of peritonitis were present and operation was further delayed until 48 hours after injury. Laparotomy at this time revealed a large rent in the transverse colon with a localized inflammatory reaction and a draining sinus to skin. The colon defect was exteriorized over a glass rod, but the patient succumbed of sepsis, nevertheless, in the immediate postoperative period.

Three gunshot wounds of the colon were seen and all were exteriorized over a rod; one additional traumatized area of the cecum was found to be less than a full-thickness injury and was simply inverted. The nature of this clinical problem is always obvious, but it is interesting that during laparotomy in one of these patients a large hole in the splenic flexure was found only after opening the lesser sac and exploring from within. This maneuver was suggested by the inability to trace satisfactorily the continued course of the missile in spite of the absence of any external evidence of damage to the colon. These three gunshot wounds were all operated on without delay shortly after injury, and, as a group did well although 2 of the patients developed wound infections.

The patient who sustained the perforation secondary to a D and C apparently was injured by a dilator which penetrated the cervix and entered the rectum at a point below the peritoneal reflection. Although the peritoneal cavity itself was not involved, she

Case	Sex and Age	TYPE OF PERFORATION	OPERATION	RESULT
1	M 42	Penetration of transverse colon by cable	Exteriorization 48 hours after injury	Died of sepsis
2	M 38	Gunshot wound ileum, cecum and transverse colon	Resection of ileum, inversion of crease in cecum, exteriorization transverse colon	Wound infection, recovered
3	M 26	Gunshot wound of splenic flexure	Exteriorization splenic flexure, splenectomy	Recovered
4	M 27	Gunshot wound of splenic flexure	Exteriorization splenic flexure, suture of stomach	Abscess, recovered
5	F 53	Perforation during D & C	Sigmoid colostomy	Recovered
6	M 69	Perforation of colostomy during irrigation	Proximal colostomy	Recovered
7	M 82	Fall on leg of stool with laceration urethra, rectum and anus	Primary repair rectum and anus, splinting of urethra	Anal incontinence, urethral stricture
8	F 38	Diverticulitis of sigmoid	Colostomy	Mass subsided
9	F 54	Diverticulitis of sigmoid	Colostomy	Mass subsided
10	M 57	Diverticulitis with adhesive small bowel obstruction, advanced	Colostomy, drainage of abscess, enterotomy	Aspirated gastric contents, and died post-operatively
11	F 79	Diverticulitis with perforation of one week's duration	Colostomy and drainage of abscess	Died of sepsis
12	M 46	Inflammatory disease cecum	Right hemicolectomy	Wound separation, thrombophlebitis and pulmonary emboli, penicillin reaction, recovered
13	F 52	Carcinoma cecum	Right hemicolectomy	Recovered
14	M 66	Carcinoma sigmoid	Colostomy and drainage, later resection	Recovered

presented with fever and abdominal distention and complained of severe pain during an enema given to relieve the distention. All findings promptly cleared after a diverting colostomy and no further local care was necessary.

The colostomy perforation occurred in a man with a mature single-barrel colostomy apparently as the result of inexpert irrigation and resulted in the formation of multiple fistulae around the colostomy. This was dealt with by a proximal diverting colostomy. Fourteen instances of this particular type of injury were recently reported by Green and Blank (1). They thought the factors responsible for colon perforation were:—a rigid irrigating tip, forceful insertion and too deep an insertion of the irrigating tube.

The elderly man who fell in the bathtub on an upturned stool leg sustained an extensive laceration of the rectal wall below the peritoneal reflection which was dealt with satisfactorily by primary repair with-

out colostomy since drainage was adequate from below. It is believed that the incontinence of the external sphincter which resulted might well have occurred even if a colostomy had been done.

Perforation Due to Inflammatory Disease

The 4 perforations due to diverticulitis were all handled by proximal diverting colostomy. Indeed, one could hardly argue with the wisdom of this procedure which is generally effective and represents a minimal operation for a group of very ill patients.

One patient who expired had, in addition, an obstruction of the small bowel of one week's duration and died from aspiration of gastric content at the time of endotracheal intubation. The other death was in a patient with diverticulitis and a long-standing perforation and generalized peritonitis who was moribund at the time of admission to the hospital.

The patient with nonspecific inflamma-

tory disease of the cecum presented with a walled-off, localized process which was readily amenable to right hemicolectomy. Nevertheless, he had a somewhat complicated postoperative course.

Perforated Carcinoma

Carcinomas with perforation may be resected primarily or be delayed by proximal colostomy depending upon circumstances. Both methods were used in the 2 cases included here. The perforated carcinoma of the cecum had been effectively walled off with little generalized peritoneal reaction, whereas the patient with the perforated sigmoid carcinoma showed a much more marked peritoneal and systemic response. These findings were sufficient to dictate primary resection in the former and diverting colostomy in the latter patient.

In either event, the likelihood of cure is negligible and a rapidly recurrent tumor is the rule.

Discussion

The necessity for dealing promptly with fecal soilage of the peritoneum is obvious and is well demonstrated by the case of the man who died after a 48 hour delay in exteriorization of his perforation. This man had received antibiotics for 24 hours before operation but succumbed in spite of this. This is in marked contrast to the 3 gunshot wounds which were treated promptly with survival of all. Again, one is reminded of the importance of doing an exploratory laparotomy in any patient in whom even a small possibility of penetrating injury exists.

In one of the patients who had a gunshot wound the large hole in the splenic flexure would not have been found if exploration had been hasty or incomplete. The consequences of such an oversight are easy to imagine.

Many patients with perforations of the

colon particularly if long-standing or of advanced age, are too sick for anything more than the most expeditious operative procedure. In these patients a colostomy is the ideal procedure. In better risk patients, primary excision is worth considering as a means of dealing definitively with the problem and avoiding a subsequent operation. That this cannot always be done without appreciable morbidity is demonstrated by the patient (Case 12) who had a very complicated postoperative course following an emergency right hemi-colectomy.

When perforation occurs below the peritoneal reflection, proximal colostomy for diversion is required only if drainage is not adequate from below. The patient in Case 5 had little or no drainage from the vagina following perforation of the rectum at a D and C and began to improve only after a colostomy was done. The patient in Case 7, on the other hand, sustained a laceration through the perineum and the wall of the anus and rectum. This was adequately drained from below and healed well without a colostomy.

Although age and the general condition may modify the choice of procedure in the direction of conservatism, the choice is often dictated more directly by the nature of the perforation and the response of the surrounding tissue to it.

Summary

This is a presentation of 14 patients with perforation of the large bowel from various causes and treated personally. In the majority, proximal colostomy was elected as the emergency treatment of choice. In selected cases, however, primary resection may appear indicated and can save the patient subsequent operations.

Reference

Green, W. W. and Blank, W. A.: Colostomy Perforations by the Irrigating Tip, *Internatl. Abst. Surg.*, 121: 227, 1965.

The authors find this surgical management satisfactory to reduce morbidity, but more so, residua which may be disabling.

Management of Acute Iliofemoral Venous Thrombosis*

JOHN L. SAWYERS, M.D., JOHN H. FOSTER, M.D., and
WILLIAM H. EDWARDS, M.D.,† Nashville, Tenn.

In recent years there has been increasing dissatisfaction with the prolonged morbidity of phlegmasia alba dolens when treated by the usual measures of rest, elevation, and anticoagulants. There also has been concern with the high incidence of the post-phlebitic limb which results from extensive deep thrombophlebitis. The enthusiastic reports of others (1, 2) have led us to utilize thrombectomy as the treatment of choice for acute iliofemoral venous thrombosis.

Diagnosis

The diagnosis of iliofemoral thrombosis can be made with assurance only when there is massive edema of the leg from toe to groin, with tenderness along the femoral canal. (Fig. 1) There is usually an accompanying severe aching or throbbing pain throughout the extremity especially when

the leg is dependent or when the patient tries to walk. Skin color is frequently mottled with areas of pallor and cyanosis, but is not a reliable indication of the extent of thrombosis. Phlebography should be done to verify the diagnosis. Phlebograms are easy to perform and have not resulted in complications in our patients (Fig. 2).

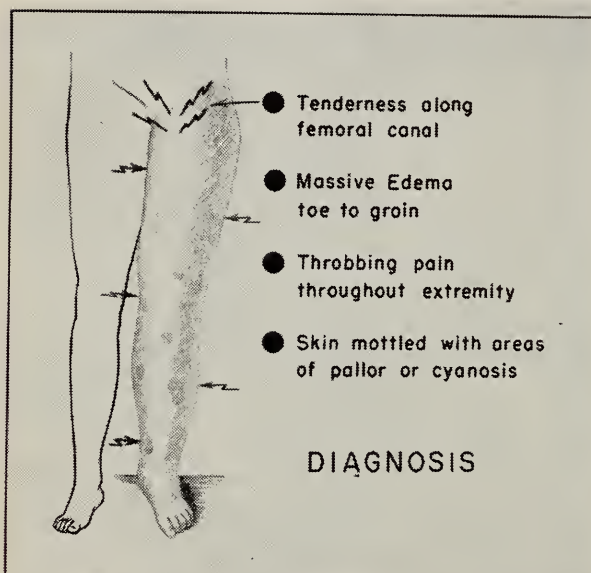


FIG. 1.

*Presented at the Eighth International Congress of the International Cardiovascular Society, Sept. 9, 1967, Vienna, Austria.

†From Department of Surgery, Vanderbilt University Medical Center; Surgical Services of Nashville Metropolitan General and Vanderbilt University Hospitals, and the Edwards-Eve Clinic, Nashville, Tenn.



FIG. 2. Phlebogram showing thrombosis of femoral and iliac vein with extensive collateral circulation.

Clinical Experience

This series consists of 40 patients who have had 41 iliofemoral thrombectomies from 1960 through 1965. (Fig. 3) One patient had a right iliofemoral thrombectomy and returned 4 months later with a left iliofemoral thrombosis. The age range has been from 2 to 70 years. The number of males and females has been almost equal, with 21 males and 19 females. The left leg

40 PATIENTS WITH 41 THROMBECTOMIES

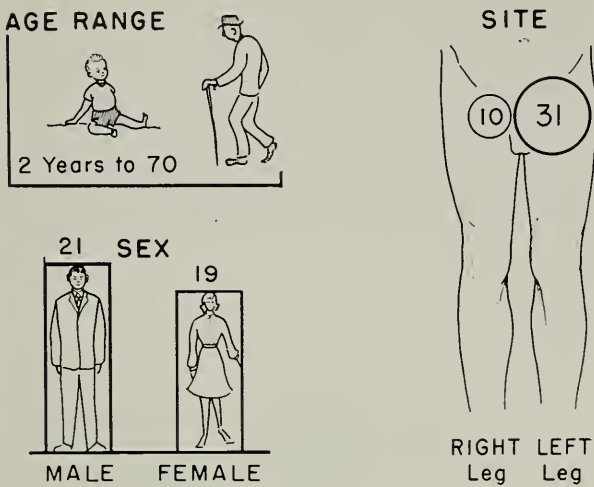


FIG. 3.

was involved in 31 of the 41 cases.

A variety of possible contributing factors to explain the etiology of iliofemoral thrombosis were present in these patients. Most cases occurred in postoperative patients and in those with lengthy confinement to bed. A fresh thrombosis occurred in 4 patients with old postphlebotic extremities and in 3 patients the thrombosis was spontaneous without cause in otherwise healthy individuals (Fig. 4)

ETIOLOGICAL FACTORS

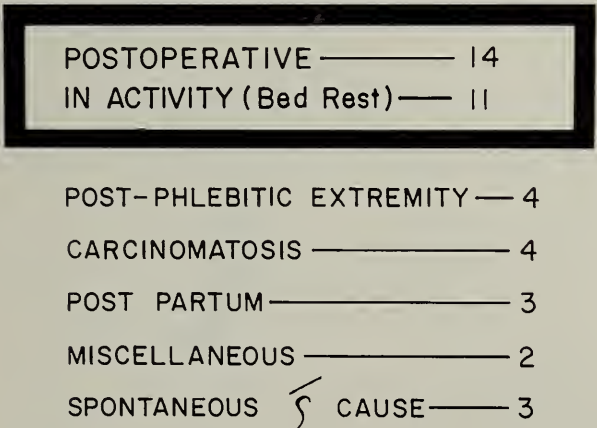


FIG. 4.

Results

The overall results in the 41 iliofemoral thrombectomies revealed 71% of the patients graded as having good to excellent results from 2 to 7 years after operation (Fig. 5). An *excellent* result was interpreted to mean that the patient had an apparently normal extremity after the thrombectomy. A *good* result indicated that the patient had

RESULTS

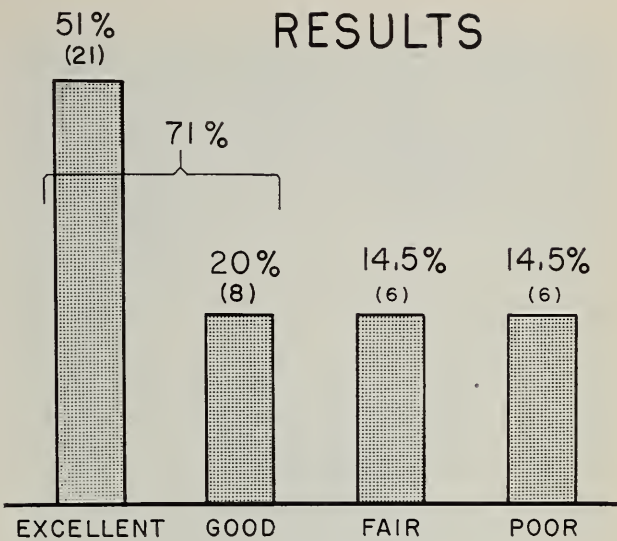
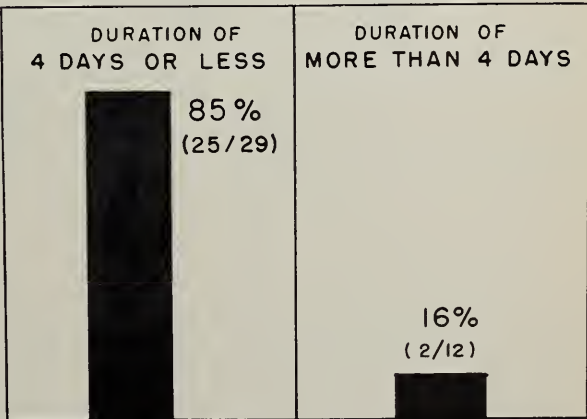


FIG. 5.

mild venous insufficiency with slight edema of the foot on standing, but no pain in the extremity and did not require an elastic support to the leg. *Fair* results were interpreted as showing a moderate degree of venous insufficiency, edema on standing that requires an elastic stocking, but no pain in the extremity. A *poor* result was obtained in 6 patients, who had severe residual venous insufficiency.

The success of iliofemoral thrombectomy is related to the time interval between the formation of the thrombus and its removal. Eighty-five per cent of the patients with a thrombus of 4 days duration or less had good to excellent results, while only 16% had good to excellent results when the clot was present for more than 4 days (Fig. 6).

DURATION OF THROMBOSIS
IN RELATION TO
FAVORABLE RESULTS



GOOD TO EXCELLENT RESULTS

FIG. 6.

The ease of extracting the clot and the ability to remove all the thrombus and re-establish normal flow are directly related to the success of thrombectomy as well as to the duration of the clot. Extraction of the clot has been facilitated by use of Fogarty's balloon catheters, which have also been used to prevent pulmonary embolization during the operative procedure (3) (Fig. 7).

Discussion

The possibility of manipulative fragmentation of a clot and subsequent pulmonary embolization has been of grave concern to surgeons. No patient in this series developed symptoms suggestive of embolization at the time of iliofemoral thrombectomy.

Recently we have used the Fogarty balloon catheter to occlude temporarily the in-

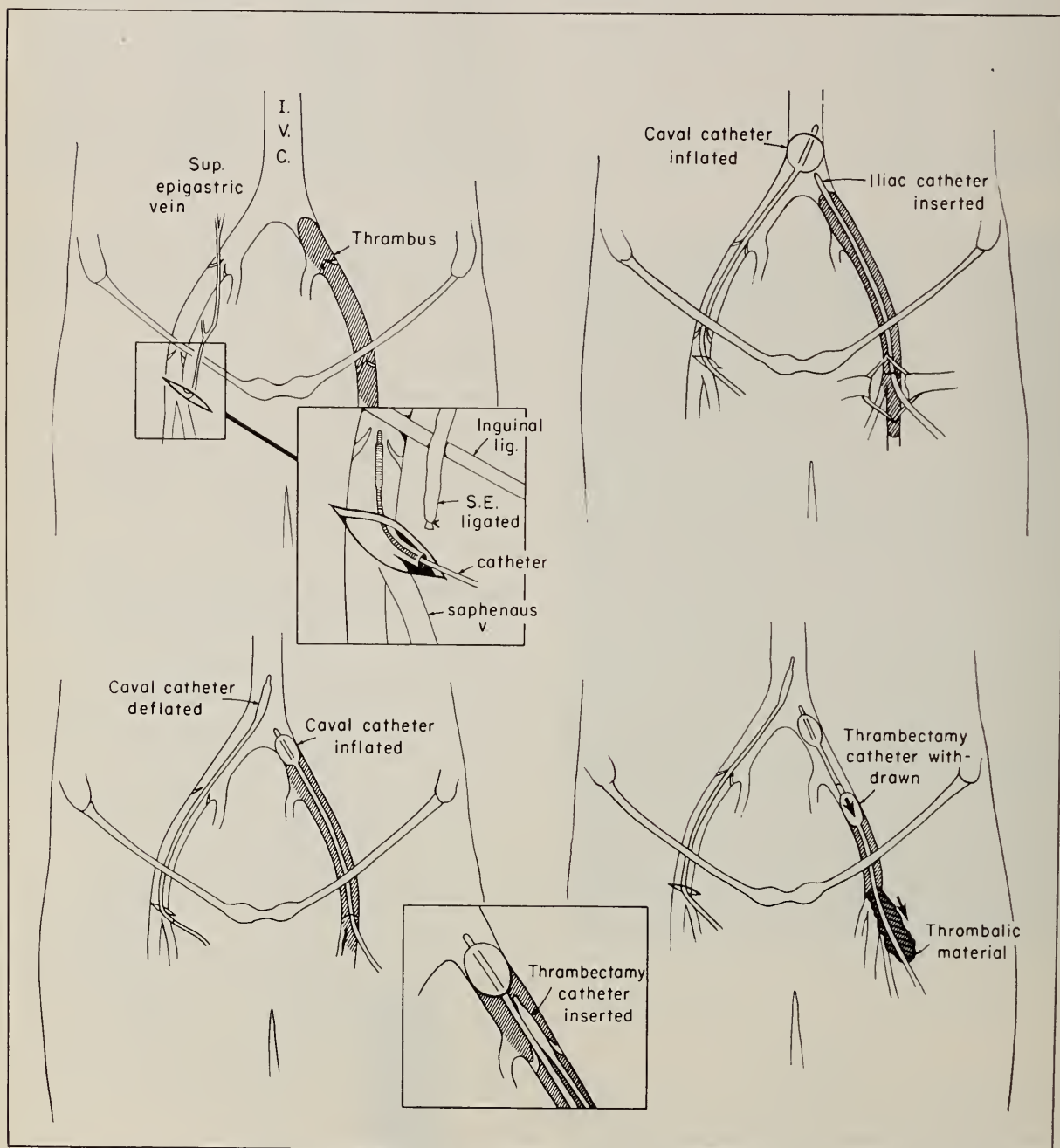


FIG. 7. Technic of thrombectomy using Fogarty balloon catheters. The catheter is inserted into branch of saphenous vein in the uninvolved extremity (upper left). The vena cava is occluded to prevent emboli while the catheter is inserted into the thrombosed femoral vein (upper right). The caval catheter is deflated to restore blood flow after a second catheter is pushed through the thrombus. Insert shows third catheter inserted through thrombosed vein (lower left). The thrombus is removed by withdrawing inflated balloon of third catheter while the second catheter prevents emboli (lower right).

ferior vena cava while the thrombus is removed (4). Prior to manipulation of the clot, 50 mg. of heparin is given intravenously in an attempt to prevent thrombus propagation and to avoid further thrombus formation after the clot is removed. We have usually used heparin after operation while the patient is in the hospital and then changed to warfarin sodium (Coumadin) for 6 weeks.

Two patients not treated with anticoagulants after operation did have a pulmonary embolus 5 and 8 days after operation. These patients had tenacious clots that could not be removed entirely by the operator, and distal blood flow from the leg was never well established. These cases suggest the need for anticoagulants in all patients or vena caval plication or ligation if for some reason anticoagulants cannot be utilized after thrombectomy.

Despite the use of anticoagulation after operation, phlebograms performed at repeated intervals in the postoperative period may show rethrombosis of the iliac vein within a few days after successful clot removal. However, these patients continue to show clinical improvement from their thrombectomy because of venous return through collateral channels (Fig. 8). In some patients recanalization of the iliac vein occurs.

Professor Fontaine has reported that at times the postoperative phlebogram may show that the venous flow is not always entirely re-established, but this has had no adverse effect on the clinical picture. He also has found that the best results occur if the thrombus is removed in the first 4 days (5).

Immediate thrombectomy continues to be our treatment of choice for acute iliofemoral thrombosis. It is indicated for immediate relief of pain and edema and helps to prevent massive pulmonary embolus by removal of the clot. Even if the



FIG. 8. Postoperative phlebogram showing rethrombosis of the iliac vein but adequate venous return through a large collateral ovarian vein. This patient had satisfactory clinical result.

clot is removed incompletely and rethrombosis occurs, patients usually obtain immediate improvement because flow is established through collateral venous channels. Venous thrombectomy is also considered to be important in the prevention of deep venous incompetence which so frequently results in the tragic sequelae of the postphlebotic extremity.

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Preceding issues of the JOURNAL have described the Regional Programs, the Mid-South Program and now the Memphis Regional Medical Program.

Memphis Regional Medical Program For Heart Disease, Cancer and Stroke

JAMES W. CULBERTSON, M.D.,* and JAMES W. PATE, M.D.,** Memphis, Tenn.

Objective

The purpose of this grant is to plan a needed, feasible and practical cooperative arrangement among a group of public and private non-profit agencies and institutions engaged in research, training, diagnosis and treatment of heart disease, cancer, stroke and related diseases in the Memphis Medical Region for the purpose of elevating the standards of medical care of these diseases in this area.

Specifically, planning will include:—determination of existing resources and present and future needs, methods for improvement of mutual communication between medical and paramedical personnel and the public, development of programs of advanced and continuing training of physicians and allied persons, identification and definition of problems in health care in this region and planning of a program for their solution.

An estimate of the magnitude of the problem can be gained from the table of mortality and morbidity of heart disease, cancer and stroke in Shelby County.

Background

Memphis, a trade and distribution center, is a city of 620,998 with a population of 840,000 in the metropolitan area. It is located in the southwest corner of Tennessee adjoining Northern Mississippi and Eastern Arkansas. The population of the city proper is 60% white and 40% Negro, and the per capita income is \$1,800 per annum. The Medical Center serves as a referral center for a population in excess of 2,000,000 and comprises the largest "industry" in terms of dollar-expenditures in the city. The physician population is about 1,140.

The University of Tennessee is an integral part of the community and is accustomed to operating with the support of and in cooperation with

other medical institutions in the community in an interdependent manner.

In 1946, the Commission Government of Memphis, in collaboration with the University and the hospitals of Memphis, employed the firm of Anthony J. J. Rourke to carry out a survey of patterns of referrals, present medical facilities and future needs of the Memphis area. These recommendations have subsequently been implemented. Among these recommendations was the establishment of the "Mid-South Medical Foundation" whose primary function was to be planning for the Medical Center. In 1965, the Memphis and Shelby County Medical Society appointed an Ad Hoc Committee to make recommendations for the establishment of the Mid-South Medical Center Council for Comprehensive Health Planning, Inc. The Board was appointed by the Medical Society in the spring of 1966, and a state charter was secured. Since its original organization, the scope and membership have been expanded to include representatives from the region outside of Memphis and Shelby County.

When legislation authorizing the Regional Medical Programs for Heart Disease, Cancer and Stroke was enacted by Congress, by common consent and by a resolution of the Memphis and Shelby County Medical Society, the University of Tennessee College of Medicine was designated as the applicant institution for this area.

In the fall of 1965, the Dean of the College of Medicine appointed a "Core" Committee to lay plans for the development of a Planning Grant application for a Heart Disease, Cancer and Stroke Program. The membership of the "Core" Committee was widely representative of the practicing medical community, as well as the full-time faculty of the College of Medicine. This Committee included officers of the Memphis Heart and Cancer Associations, the Shelby County Health Department, and various medical institutions. Since the membership of the Mid-South Medical Center for Comprehensive Health Planning, Inc., was representative of the lay as well as the medical and in-

*Coordinator and **Chairman, Core Committee of the Memphis Regional Medical Program, Memphis, Tenn.

stitutional leadership of the Mid-South area, it was considered that the Board could well serve as the Advisory Board to the University of Tennessee for the Heart Disease, Cancer and Stroke Program along with its other duties and responsibilities. The Dean, therefore, appointed the Board in toto as the University of Tennessee's Advisory Group for the Heart Disease, Cancer and Stroke Program; and a substantial portion of the Planning Grant budget is requested to support this body. The Memphis and Mid-South Medical Center Council has participated in and been kept fully informed of the grant application and understands its responsibility to the community and region when a program is developed here. The application was presented to it formally in August and was endorsed.

The Heart Sub-Committee of the Core Committee was an extension of the group which was active in 1961-1965, in developing outstanding physical facilities and staff in the field of heart disease in this area. During that period, this committee planned and saw fulfilled the building, equipping and staffing of new Cardiac Catheterization Laboratories, Hemodynamic Laboratories, Cineangiographic Facilities, Peripheral Vascular Laboratories, Cardiovascular Research Laboratories, Cardiac Operating Room, Electronic Monitoring Facilities, an elaborate Intensive Care Unit and Renovascular Laboratories. The members of the Cancer Sub-Committee stimulated the planning, building, equipping and operating of a newly completed West Tennessee Cancer Clinic and Tumor Registry. They also constituted a Faculty Search Committee to recruit an outstanding Oncologist to develop a clinical training program in Cancer. The members of the Stroke Sub-Committee have a long-term major commitment to research and training projects in cerebrovascular diseases and have gained NIH support for a Cerebrovascular Research Center and a Cerebrovascular Training Grant.

This Core Committee and its sub-groups met numerous times during the winter of 1965-66, with discussions centering amid educational, research, research training, and equipment needs in these areas. A meeting of hospital staff officials, medical society

representatives and hospital administrators representing the entire region was also held in Memphis. Interest in the program and an eagerness to improve communication and education were expressed. At this meeting and in subsequent discussions with small-town physicians, it was evident that there existed a certain wariness in regard to the patient care aspects of a regional program. Fear was expressed that there might be interference with patterns of private practice. Because of this fear, it is clear that open and free discussions with medical societies and individual participants must be entered into early in the planning steps. Letters have been sent to many physicians and persons involved in health activities of the entire region, requesting assistance in its planning and soliciting their ideas. Many individuals, hospitals and medical societies have responded; and official representatives to the Core Committee have been appointed. Approximately 90% of the hospital beds in this region are in institutions which have been found in compliance with Section 601 of Title VI of the Civil Rights Act of 1964. Only these institutions are being considered in the present grant.

The Dean has been in communication with the Deans of the University of Arkansas, the University of Mississippi and Vanderbilt University; and they are in agreement that equitable arrangements can be effected to insure that no friction will develop between their several institutions.

Preliminary surveys of the proposed region have been made of such factors as the following:

- a. Distribution of population by counties and region
- b. Projected population trends
- c. Transportation facilities
- d. Communication facilities
- e. Higher and para-medical education facilities
- f. Patterns of patient referrals
- g. Medical facilities and personnel resources and their expected relationship to the Region
- h. Patterns of advanced continuing education in the Region
- i. Distribution and need of specialized equipment and facilities used in heart disease, cancer and stroke throughout the area.

Other studies by groups related to this committee, such as the Tennessee Heart

Association, have been reviewed and updated to summer, 1966.

Proposed Region

From the above surveys, a tentative region has been defined.

Conclusions that have been drawn from these studies are:

(1.) The proposed region represents an economically, socially and medically cohesive area. There is far greater overall interrelationship within this region than between any part of it and adjacent regions or political divisions.

(2.) Regional limits should be overlapped with adjacent Regions for purposes of patient referral to allow for individual opinions of patients and private physicians.

(3.) The Memphis Medical Center has good facilities and personnel for patient care, research, and education; but these are not fulfilling their potential for several reasons, including:

- (a.) Lack of overall coordination
- (b.) Poor communication with surrounding areas
- (c.) Need for more financial support of personnel and specialized equipment, particularly for educational purposes
- (d.) Some failure on the part of practicing physicians in utilizing available facilities; this failure can be eliminated only by better communication and education, and the development of a structured program.

(4.) Serious lack of social and follow-up services throughout the area.

The *Proposed Region* includes all of Tennessee west of the Tennessee River, a large part of northern Mississippi, a significant part of Arkansas and a small portion of Kentucky and Missouri. Previous studies of the pattern of private and charity patient referrals gave the initial definition of this area. It has been changed only slightly by recent (1965-1966) surveys (by the present Core Committee) of residence of hospitalized patients, clinic visits, private patient consultants, interviews and surveys with practitioners from small towns, records of post-graduate class enrollments and similar data. The proposed region was concurred in by a group of peripherally located interested physicians, hospital administrators

and medical society representatives in the spring of 1966. It has recently received the endorsement of the Regional Advisory Group after review of collected data.

The population of the Region is about 2.4 million. There is a slight downward trend in the population of northern Mississippi, but a strong upward trend elsewhere. Income levels are well below the national average, even in the central Memphis-Shelby County area, and the resultant degree of medical indigency is proportionally great.

Resources and Present Regionalization

Institutions available for participation in this program include a large medical school, clinical research centers, (general, childhood malignancy, and cerebrovascular diseases) hospitals, public health services, nursing and rehabilitation units, volunteer health organizations, medical societies and colleges.

Most of the medical facilities are located within a five-block area in the Memphis Medical Center and include:—

(A.) *In Medical Center*

- (1) City of Memphis Hospitals—905 beds
- (2) Baptist Memorial Hospital—1,533 beds when present addition under construction is completed
- (3) Memphis VA Hospital—984 beds
- (4) West Tennessee Tuberculosis Hospital—400 beds
- (5) Tennessee Psychiatric Hospital—200 beds
- (6) LeBonheur Children's Hospital—89 beds
- (7) Les Passees Rehabilitation Center—an out-patient facility
- (8) Variety Children's Heart Institute—an out-patient facility
- (9) Memphis Speech and Hearing Center
- (10) University of Tennessee Child Development Center (construction to begin in a few months on a \$4,500,000 facility to house this activity)
- (11) Memphis & Shelby County Health Department
- (12) University of Tennessee Medical Units
- (13) West Tennessee Cancer Clinic—an out-patient facility
- (14) Campbell Clinic—80 beds

(B.) *From ½-1 Mile Outside The Center*

- (1) Methodist Hospital—890 beds
- (2) St. Joseph Hospital—550—575 beds when present addition under construction is completed
- (3) St. Jude Hospital—a research facility for catastrophic diseases of children

(C.) *Over 70 Hospitals Throughout The Area*

The University of Tennessee Medical Units lie astride the Medical Center and own property with an estimated value of \$35,000,000. They operate Colleges of Medicine, Dentistry, Pharmacy, Nursing, a Graduate School of Medical Sciences and a variety of technical training programs with a total budget of approximately \$12,000,000. The College of Medicine has been in continuous operation on this campus since 1911, has over 5,000 living alumni, and graduates an average of 170 physicians per year.

Since the University does not own a hospital, its programs of clinical instruction and residency training are carried out through a system of affiliation agreements with the Medical Center Hospitals.

The principal teaching hospital is the City of Memphis Hospitals, composed of 560 ward beds and 290 private and semi-private beds, including a 21-bed research center. There are at present 50 interns, 155 residents and 20 Fellows involved in training programs in this hospital as well as medical students, students in laboratory technology, physical therapy and social work. The University owns three buildings adjacent to and connected with the City of Memphis Hospitals—the Pathology Institute Building, Gailor Diagnostic Clinic Building, and the James K. Dobbs Medical Research Building. Within the last five years, the City of Memphis and the University of Tennessee, jointly, have spent in excess of \$10,000,000 in capital improvements on the Hospital and adjacent structures. Further additions and improvements of the City of Memphis Hospital-Medical Units complex are in the planning stages at an estimated cost of \$30,000,000.

One of the hospitals in the City Hospital complex is the E. H. Crump Memorial Hospital, constructed in 1956 for private Negro patients. As of July 1, 1966, this hospital has been added to the teaching service of the University, and specialty services are being developed in a step-wise fashion—one of which is a stroke service. It is believed that as private Negro patients are absorbed by the community hospitals over the next 12 months, the hospital will be made available for expanded heart disease, cancer and stroke services, as well as other specialty services.

Although the City of Memphis Hospitals operate primarily for the benefit of the citizens of Shelby County, about 17% of its in-patients are regional in character. The West Tennessee Cancer Clinic, Variety Children's Heart Institute, Memphis Speech and Hearing Center, University of Tennessee Child Development Center, St. Jude Hospital and Research Institute and a public health service-supported Neurology Clinic also operate on a regional, rather than county, basis for medically indigent patients.

The University of Tennessee residency training programs are based in the City of Memphis Hospitals. Some programs, however, include rotation in the Baptist Memorial Hospital (neurosurgery,

orthopedics, thoracic surgery, plastic surgery), Tennessee Psychiatric Hospital (psychiatry), LeBonheur and St. Jude Hospitals (pediatrics), West Tennessee Tuberculosis Hospital (medicine, surgery, neurosurgery), and St. Joseph Hospital (medicine and surgery).

Formal agreements exist between the University and the City of Memphis Hospitals (A 50 year agreement was signed in 1926.), the Baptist Memorial Hospital, Memphis VA Hospital (a conventional Deans Committee agreement) and Methodist Hospital (agreements pertaining to ophthalmology and otolaryngology residency training programs). Informal, but long standing and firm, agreements exist between the University and the West Tennessee Cancer Clinic (The building is owned by the University.), Les Passee Rehabilitation Center (The University owns the building.), Memphis Speech and Hearing Center, St. Jude Hospital and Research Institute, West Tennessee Tuberculosis Hospital (state owned) and the Tennessee Psychiatric Hospital (state owned). The arrangements between the University and Methodist and St. Joseph Hospitals, other than those specified, are informal and in the nature of an "association" rather than an affiliation.

The Department of Continuing Education of the University of Tennessee has, for many years, offered post-graduate programs to the practicing physicians of this region. These should, and can, be incorporated into the Regional Program; and special programs in heart disease, cancer and stroke should be projected by the Core Committee of the Regional Program.

The University of Tennessee, as well as private hospitals, have also offered specialized training in para-medical areas for many years. The needs for special training and scheduling of training programs should be coordinated by the Regional Program.

Baptist Memorial Hospital is one of the largest private hospitals in the world and is fully integrated with the teaching program of the University, at all levels.

The Kennedy Veterans Hospital has been active in education for two decades. It is the former "Veterans Administration Medical Teaching Group Hospital." It is also integrated into the teaching program of the University.

West Tennessee Tuberculosis Hospital has long been used for thoracic surgery training. The teaching program at West Tennessee now is fully integrated with the University at all levels, in several departments, including joint research projects. Only about one-half of the beds are occupied by tuberculous patients; the remainder are chest patients of all types from a large region.

St. Jude Hospital is primarily devoted to research and teaching of malignancies in children. This hospital is an integral part of the University and receives patients from all over the United States. In addition to clinical studies, basic bio-

logical and epidemiological investigations are active.

Pediatric and adult cardiology and thoracic surgery are regionalized by agreement with various services such as Divisions of Vocational Rehabilitation, Crippled Children's Services, Variety Children's Heart Institute and private patient referrals. There is a well established Social Service Program for cardiovascular diseases which covers essentially the proposed region.

Stroke regionalization is in existence by virtue of several rehabilitation programs, nursing services, home care, a speech school, as well as large private clinics. There is also a Public Health supported indigent center, neurology clinic, several large private clinics and a new Cerebrovascular Disease Clinical Research Program.

The West Tennessee Cancer Clinic and private referrals form the basis of regionalization in cancer.

The University faculty, through its private diagnostic clinic and the William F. Bowld Hospital, one of the City of Memphis Hospitals, has broadened its scope to a regional base in the private sector on a small scale. The Core faculty, based at the City of Memphis Hospitals, has been greatly enlarged in the last few years and is now composed of about 110 full-time University paid physicians and 225 house staff and teachers, supplemented by 75 full-time physicians paid by affiliated institutions and many parttime volunteer physicians from the practicing profession.

For purposes of the Regional Program, the hospitals can be divided into several groups:

(A.) *Integrated Hospitals*—Those institutions which have major commitments for medical student teaching, research and post-graduate education. Examples: City of Memphis Hospitals, West Tennessee Tuberculosis, LeBonheur, St. Jude, Kennedy Veterans Administration, Baptist and Campbell Clinic.

(B.) *Affiliated Hospitals*—Those institutions which are potentially valuable for purposes of education, research, or demonstrative patient care in either heart disease, cancer or stroke because of their size, geographic location, special interest or competence of the staff. Examples: Methodist and St. Joseph Hospitals in Memphis; Jackson-Madison County General Hospital in Jackson, Tennessee; Obion County General Hospital in Union City, Tennessee; and St. Bernard's Hospital in Jonesboro, Arkansas.

(C.) *Associated Institutions*—Those included institutions such as small hospitals, nursing homes, rehabilitation units, speech

schools, outpatient clinics, colleges of arts and sciences, social agencies, etc., which can fill a specific, needed function by coordinating with the program headquarters. This may be as simple as a meeting place for hospital staffs or medical societies for field education programs, or referral centers for social workers, or as specialized as speech center for stroke patients or a cardiac catheterization unit. Examples: Speech and Hearing Center, Les Passees Rehabilitation Center, Henry County Hospital, etc. There are seventy-four hospitals in the Region with varying facilities and staffs.

Transportation is quite adequate within the Region. An associated hospital could easily be within 30 minutes by automobile from any patient, and an affiliated hospital could be within 60-90 minutes. Both commercial and private ambulance air transportation is in existence throughout the region. The entire Region is well covered with commercial radio, and television is available to most of the population. An educational television station, operated by Memphis State University, is available for lay and professional education.

Extensive computer facilities are available in the Medical Center.

Organization and Inter-Relationships

(A.) *Regional Advisory Group*. The Mid-South Medical Center Council for Comprehensive Health Planning, Inc., and the Regional Advisory Group were selected to represent the leaders of the area to make recommendations to all hospitals and institutions, to avoid duplication, increase efficiency and otherwise raise the standards of care in this area. Its background is discussed in part II. Since the intent of Public Law 89-239 seems to be essentially the same which motivated the formation of this board, the council was asked, and accepted, the responsibility for functioning as a Regional Advisory Group. It is evident that they represent most organizations interested in medical care and the public good of this area. In addition, other members will be appointed to represent the more peripheral areas and organizations (Nursing Associations, etc.), bringing the total membership of the Regional Advisory Group to about 70-80 members. This group will have a full-time executive secretary and administrative staff and will draw upon the experi-

ence and advice of various technical advisory committees. The Regional Advisory Group will be responsible for initial endorsement of the application (which was done July 21, 1966), approval of policy and

quarterly re-evaluation of the activities of the Core Committee for Regional Medical Planning.

(B.) *Core Committee* is, at present, composed of:

Dr. James W. Pate
Chairman, Core Committee
Professor and Chairman, Thoracic Surgery
President, Memphis Heart Association

Dr. Edward H. Storer
Chairman, Subcommittee on Neoplastic Diseases
Co-Director, West Tennessee Cancer Clinic
Cancer Coordinator and Associate Professor of Surgery

Dr. Robert A. Utterback
Chairman, Subcommittee on Stroke
Professor and Chairman, Neurology
Director, Cerebrovascular Training Grant

Dr. Francis Murphey
Professor and Chairman of Neurosurgery
Director, Cerebrovascular Research Center

Dr. J. N. Etteldorf
Professor of Pediatrics
(Also representing LeBonheur Hospital)

Dr. Richard Overman
Assistant Dean of Research Affairs
Professor, Physiology, Biochemistry, Clinical Physiology and Radiological Biology

Dr. Douglas Hawkes
Associate Clinical Professor, Neurosurgery
(Also representing Methodist Hospital and Shelby County Medical Society)

Dr. Gene Stollerman
Professor and Chairman, Department of Medicine

Dr. Lorin Ainger
Associate Professor and Chairman, Section of Pediatric Cardiology
Chief, Variety Heart Institute

Dr. Allan Green
Associate Professor, Radiology
Chief, Radio-therapy

Dr. Colby Gardner
Associate Professor, Radiology
Chief, Cardiovascular Radiology

Dr. Ralph R. Braund
Director, West Tennessee Cancer Clinic
Associate Clinical Professor, Surgery
(Also representing St. Joseph and Baptist Memorial Hospitals)

Dr. Donald Pinkel
Medical Director, St. Jude Hospital
Professor, Pediatrics

Dr. George Cooper, Jr.
Professor, Radiology, Chairman of the Department
Consultant, Oral Diagnosis

Dr. Pervis Milnor
Director of Medical Training, Baptist Memorial Hospital
Associate Clinical Professor, Medicine, Cardiology

Dr. W. H. Gragg, Jr.
Clinical Assistant, Thoracic Surgery
(Also representing St. Joseph Hospital)

Dr. Cyrus Erickson
Professor, Pathology

Mr. Oscar Marvin
Administrator, City of Memphis Hospitals

Dr. Frank Groner
Administrator, Baptist Memorial Hospital
Past President, American Hospital Association

Dr. Francis Cole
Chief of Surgery, West Tennessee Tuberculosis Hospital
Associate Professor, Thoracic Surgery
(Also representing Methodist Hospital and Shelby County Medical Society)

Dr. Maston K. Callison
Dean, College of Medicine, University of Tennessee
Professor, Medicine

Dr. Walter Hoffman
Liaison with American Heart Association, Tennessee Heart Association and Memphis Heart Association

This Committee has functioned since December 1965, as the basic planning group. There have been three functioning "Disease Committees," one each in heart disease, cancer and stroke: *the Cardiac Subcommittee, the Cancer Subcommittee and the Stroke Subcommittee.*

Liaison members and committees have been established at certain peripheral areas, such as:

(1.) Henry County Medical Society—Dr. Joseph Mobley plus a committee from Henry County Hospital

(2.) Jackson-Madison County Regional Liaison Committee—Dr. Blair Erb

(3.) Tippah County Hospital, Ripley, Mississippi—Dr. Thomas Ketchum

(4.) Union City, Tennessee—Dr. Joseph Campbell.

The Core Committee will be responsible for surveys and planning within the policy of the Regional Advisory Group. It will have authority to appoint consultants, utilize statistical and illustrative services as it deems desirable, and hear and act upon suggestions from affiliated and associated institutions. It will later serve as the overall coordinating agency for this Region. The Table of Organization is attached. Under the Core Committee there are three

"Disease" Committees, each headed by a chairman (Associate Director) who will devote part-time to this function and who has deep commitments to his respective field. These committees include some of the Core Committee members as well as other members related to the specific field under consideration. Each committee has representation from outside the immediate Memphis area. Plans will be formulated by this group and referred to the full Core Committee for consideration. The Core and Disease Committees, therefore, will be the basic professional policy and planning groups. To aid in these functions, on a staff level, and to carry out the day-to-day activities, Program Committees will be formed. These committees will have responsibilities to all three Disease Committees. The Program Committees will include the following: Communications and Library Services, Community Services, Demography and Epidemiology, Dentistry, Health Education, Paramedical Training, Research, and Social Service. These Committees may include technical personnel, such as mass-media experts, communication technicians, librarians, nurses, social workers, etc. As the program progresses, full-time employees may be needed on the program committees.

All Program Committees are responsible to the Core Committee, but will work closely with each of the Disease Committees on particular projects. For example, the Disease Committees may recommend institution of post-graduate programs to the Health Education Committee, who will carry out the particular program if it is feasible from a technical and practical standpoint. The Health Education Committee will arrange details such as meeting place, participants, programs, equipment and publicity. The Chairman is Dr. Charles B. McCall, Associate Professor, Medicine.

Research will be coordinated through the Research Committee, which will keep an accurate and up-to-date record of research in this region, supply this information to the other committees and integrated and affiliated institutions, receive suggestions as to specific research needs from the Committees on Diseases, stimulate available persons to work on needed projects, or investi-

gate feasibility of instituting new fields of research. This committee will also be responsible for continuing surveillance of research from this region and from national publications for the purpose of transmitting new research information to the appropriate committee on disease for action in Health Education, demonstrations of patient care, or other appropriate areas. The Chairman is Dr. Richard R. Overman, Associate Dean in charge of Research.

The Paramedical Training Committee is concerned with nursing, laboratory and X-ray technical, rehabilitation, and similar areas of education. It is already apparent that there are large deficits in technical personnel such as pump-oxygenator technicians, medical electronics and bio-medical engineering people, which must be overcome by recruitment and development of training programs. The temporary chairman is Dr. H. Colby Gardner, Associate Professor of Radiology.

The Social Service and Community Service Committees will be concerned with the social and economic problems, as they relate to medical care, of the Region. Follow-up patients, arrangements for transportation, referrals for special services are all in a primitive stage of development in certain areas. Advent of Title 19 of Medicare will be particularly important during the planning stages and for evaluation of the operational program. A part-time statistician will serve as chairman of this committee.

Preliminary discussions with practicing physicians outside Memphis have repeatedly emphasized a deeply felt need for medical library services. With modern communication systems, this should be available anywhere in the Region. The Committee on Communications and Library Services will be responsible for planning such a function.

Communications underlie many of the problems resulting in less than optimal patient care. Some of the areas which need study include: Communication between specialist and general practitioners, between various specialties, between research and clinical areas, between physicians and technicians, engineers, health agencies, so-

cial workers, and others; and between patients and facilities. Due to the many publications available and frequently not read, it is expected that newer techniques, such as closed circuit television, must be developed before a major improvement in this area can be expected. Availability of emergency consultation from a distance is another goal. It is anticipated that a feasibility study will be requested for this area in the near future. Dr. Edward Storer serves as Chairman of this Committee.

Each Disease Committee will review activities of all Program Committees at quarterly intervals and forward their evaluations of these activities to the Core Committee, who then sends the overall evaluation to the Regional Advisory Board.

Methods

(A.) *Establishment of Communications.* From early contacts it is evident that communications at the professional level, para-medical area, with other organizations, and with lay leaders is greatly lacking. The first aim of the Core Committee is to establish adequate lines of communication. This will be done in the following ways:

(1.) Through its Regional Advisory Group—It has wide representation both professional and lay.

(2.) Through the Core Committee—Establishment of Liaison Committees in each participating institution, with Heart Associations (already established), Tennessee Chapter, American College of Cardiology (underway), Chapters of the American Cancer Society, Social Services (accomplished), Public Health Services (accomplished) and other such groups.

(3.) Through visits by members of the Core Committee to each participating institution and organization, to present the concept, gather data and suggestions and otherwise encourage cooperation.

(4.) Through quarterly meetings of the Core Committee with the various institutional liaison committees for continued planning and evaluation.

(B.) *Define Region.* The proposed region appears realistic; however, it cannot be final until detailed planning is near completion. For example, the area about Greenville,

Mississippi, has been closely related to Memphis (medically) for many years; but an active Regional Program at Jackson, Mississippi, may attract it into that sphere of influence. Similarly, the northwestern corner of Alabama is beginning to have intimate ties with Memphis and may well fall into this Region as planning progresses. For such reasons, the ultimate limits of the Region will probably change during the first year of the grant.

(C.) *Surveys of Existing Resources and Capabilities.* More detailed studies should be done in this regard, particularly in the peripheral areas. Funds for travel for the Planning Grant will make this possible.

(D.) *Surveys of Needs in the Region.* Data on this subject can be obtained through questionnaires from the various liaison groups such as local medical personnel, hospital administrators, public health officers and nurses, welfare people and civic groups, and by visits from representatives of the Core Committee.

(E.) *Surveys of Needs in Specific Subjects.* In addition to general surveys of the Region, specific items will be investigated on a Regional basis. These will be done under the Program Committees on such subjects as: Library Services, Public Health Information, Vocational Rehabilitation Coordination, Epidemiology, Nursing Homes, Coronary Care Units, Stroke Rehabilitation, Chemotherapy, Work Evaluation, Technical Training, Equipment, Social Services and Home Care.

(F.) *Local Plans.* The Regional Center must remain cognizant of local plans by hospitals, public health agencies, volunteer health organizations, civic groups and similar establishments. This will be coordinated with the overall Regional Program in so far as is practical.

(G.) *Relationship to Adjacent Regions.* The adjacent Regions (Nashville, Tennessee, Jackson, Mississippi, and Little Rock, Arkansas) have been contacted. Detailed discussions with the planning committees from adjacent areas should be held after some of the above data is collected. These discussions should cover: Regional limits, overlapping (which should be desirable, particularly in education) and combined

planning. This will be done by the Coordinator and Disease Committee Chairmen.

(H.) *Feasibility Studies*. Out of the above information-gathering functions, detailed plans in certain areas will be made and feasibility studies carried out. Examples of such studies might include evaluation of:

(1.) Regional recruitment of personnel for para-medical training

(2.) Establishment of special training facilities for needed technicians or other personnel. (A state two-year college and Vocational Training Center are in advanced planning stage in Memphis.)

(3.) A Continuing Education Program in Heart Disease, Cancer and Stroke. Video links with about five geographically scattered institutions would make these programs available to most physicians in the area. Cables rented for 2-3 hours per day would serve this and other purposes. Teaching seminars, rounds, research programs, etc., originating in the Medical Center, could be shown in these peripheral institutions (during lunch hour, for example) with audio communication for questions and answers. By use of the capabilities of the Region, outstanding educational programs could be made available and easily expanded.

(4.) Library Services—Modern communication techniques, such as read-out machines connected to a large computer should allow the physician in a small town the same access to knowledge as is now enjoyed by his colleague in the large medical center. This function could probably be served by the same cable link as that used in educational programs.

(5.) Continuing Education for Paramedical Personnel—This might be accomplished using both video to large institutions and audio to smaller institutions.

(6.) Accessibility of Consultations—Such functions as emergency electrocardiographic, radiographic or even pathological consultations should be made readily available over the entire area. Modern communications should make this feasible.

(7.) Research—Adequate information of active research in the Center should be

passed on to affiliated and associated institutions. This would serve to keep their staffs up-to-date as well as to stimulate their cooperation in clinical research programs.

(8.) Demonstrative Patient Care—Not only in the Medical Center Hospitals, but in affiliated and associated institutions could be used as an adjunct to continuing education programs for medical staffs, nurses and other paramedical personnel. Crump Hospital, recently added to the University of Tennessee responsibilities, is available for such purposes. The addition of more sophisticated diagnostic and treatment equipment in the Medical Center Hospitals as well as in the peripheral hospitals may be necessary for developing the best in patient care in this region.

(9.) Formal continuing Educational Programs in affiliated hospitals could be organized using their staff, where advisable, complemented by specialists from other institutions.

Evaluation

Frequently evaluation of data collected and plans formulated by the Core Committee as well as the Disease Committees would be made by the Committees themselves. Further evaluation would be made by the Regional Advisory Group, quarterly. These evaluations would also include comparison with information from adjacent regions and from national sources.

Priorities

Emphasis during the first year will be given to: (1) A future study of the extent to which programs of research, training, education and patient care in the areas of heart disease, cancer and stroke are now operating in this region, (2) An evaluation of their current effectiveness, (3) An estimate of needs, (4) How such programs can be better coordinated, (5) A further definition of the Region, (6) The development of cooperative arrangements with adjacent Regions, (7) An exchange of information between various local agencies and the Core Committee, (8) An exchange of information

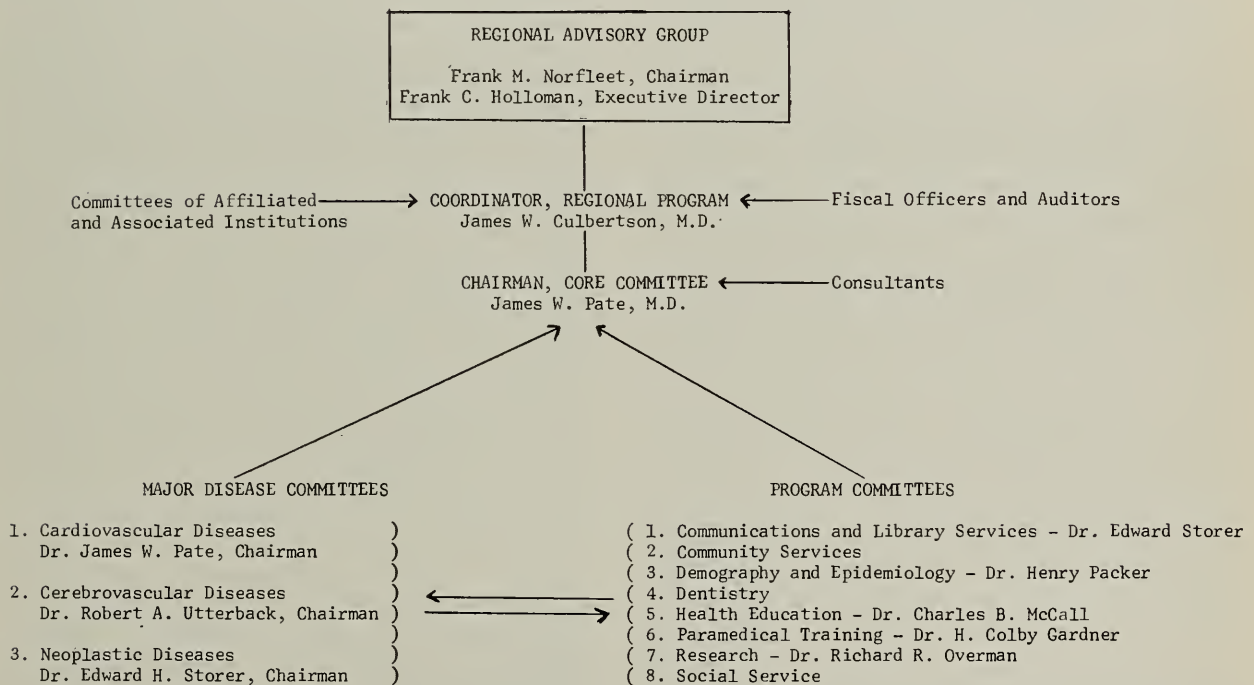
between both contiguous and other planning groups throughout the nation, (9) Stimulation of and assistance to local planning groups for heart disease, cancer and stroke within our Region and integration of such local planning with regional plans.

Emphasis during the first year will be given to: (1) Refinement and adjustment of plans and operations to meet objectives of the Regional Advisory Group and Regional Medical Programs.

Goals

It is expected that the Planning Grant will make possible an accurate assessment of the needs which are necessary to fulfill the purposes of the Regional Medical Program, to formulate and start feasibility studies for this implementation of these needs, and to make adequate, realistic plans to begin operation of a Regional Medical Program with the cooperation of the leaders of the Region.

TABLE OF ORGANIZATION



CASE REPORT

Schizophrenia, a Continuing Problem For the Family Physician

James A. Burdette, M.D.,* Knoxville, Tenn.

In recent years much emphasis has been placed on the need for a better understanding and application of the principles of psychiatry by physicians in their everyday practice of medicine.¹ When this subject of "useful psychiatry" by nonpsychiatrists is discussed, the emphasis is usually on the recognition and management of the less severe psychiatric problems such as psychosomatic symptoms and milder neurosis.² Most nonpsychiatrists probably would emphatically agree that they cannot treat and do not wish to treat a major psychosis such as schizophrenia, and would try to "get rid of" such a patient as quickly as possible.

The following case history is presented to suggest several alternative points: (1.) In the practice of any busy physician, there are probably several patients who are basically and potentially seriously ill from a psychiatric point of view, but who are unrecognized or improperly diagnosed. (2.) Occasionally, the physician will be faced with serious psychiatric problems with no experienced psychiatric consultation available to whom he can refer the patient. (3.) Awareness of the correct psychiatric diagnosis will enable the physician to take reasonable safeguards to prevent a potentially serious problem from exploding into an emergency or death. (4.) The family physician who is aware of the patient's diagnosis can be very supportive and helpful to the patient in times of crisis even though he makes no attempt to use traditional psychotherapeutic technics in treating the patient. It may be that even supportive listening and limited counseling by a known and trusted physician may be better treatment for a patient seriously ill with a psychiatric emergency than the usual and expected psychotherapy.

*From the Department of General Practice. The University of Tennessee, Memorial Research Center and Hospital, Knoxville, Tennessee.

†The teaching conferences referred to are supported by the National Institute of Mental Health Grant, No. 5 T1 MH 7285-07.

Case Report

The patient was first seen at age 17, at the time of a severe episode of infectious mononucleosis with jaundice which required hospitalization for one week.

At this time, her physician was impressed that she was quite intelligent, attractive, a little flirtatious, not as cooperative as desired and could be characterized as a "Kooky Teenager." She recovered satisfactorily from the mononucleosis, soon graduated from high school, and entered college at the State University the next fall.

She was next seen in the winter complaining of excessive fatigue and difficulty in sleeping at night. She attributed these symptoms to "boredom," and the physician accepted the interpretation and advised no specific treatment.

The next medical contact was in the fall of the following year at which time she requested a physical examination for entrance to another college. The physician did not know at this time, but later found out, that she had been dropped from the State University because of the failure to make satisfactory grades along with erratic class attendance. This physical examination was within normal limits other than slight obesity and some vague joint pain in the knees for which she requested limitation in the physical education course. The physician interpreted this as being similar to many "normal" adolescent girls who prefer not to take vigorous physical exercise if they can get out of it. She was next seen at about Christmas time with a rather prolonged respiratory illness with a minimum of physical findings. Following this she had a "reaction" to the prescribed medication and missed the first week of her return to school because of the continuing illness. Her physician, who was attending a series of regular conferences on "Useful Psychiatry for the Non-Psychiatric Physician" at this time, felt that some of her disability was on a psychosomatic basis but was not unduly concerned by her general condition.†

In the spring of that year the patient was brought into the physician's office by her mother with the statement that the patient had taken an overdose of medication two days previously while away at school. The patient had apparently taken a large dose of sedative and had been unconscious about 12 hours in spite of medical attempts to revive her. The mother was surprisingly unconcerned about this act. She even stated that she would not have brought her daughter home if the school authorities had not insisted on it.

The patient was then listened to at some length. With little prompting, she gave a lengthy, detailed and overwhelming "confession" of the history of an affair with a boy whom she had been dating. This story included, in what was felt to be unnecessary and unexpected detail, a number of episodes of sexual experiences and of antisocial activities in the community. These had been initiated by the boy but will-

ingly carried out by the patient at his request. Needless to say, the physician was surprised, disturbed and apprehensive at having this history presented to him in such an open and unexpected manner. The patient related that she had had a fight with the boy, at which time he taunted her and said he would not see her again. Following this, she felt quite depressed and hopeless and took a large dose of sedatives which she had been saving over the previous months. Following this interview, the physician did not think the patient seemed seriously depressed, but in accord with what he had learned at some of the recent conferences, he believed she should be hospitalized for further evaluation. She was placed in a psychiatric ward of the community hospital with the admitting diagnosis of acute reaction depression and sociopathic personality.

She was seen in consultation by a clinical psychologist and a psychiatrist who had participated in the teaching conference on "Useful Psychiatry." Both of these persons thought the patient was basically schizophrenic rather than sociopathic and firmly recommended intensive psychiatric treatment.

This diagnosis was difficult to understand and accept by her family physician, since the patient knew where she was, what she had done and continued to relate to and talk to the physician, even though at times in her own "kooky" fashion. Nevertheless, after some discussion in which the more bizarre aspects of her actions were pointed out, it was agreed that she should have intensive psychiatric treatment and she was referred to a private psychiatric hospital in another city. This was done over considerable objection from the patient's mother. It should be noted here that the patient's father had still never been seen either in the office or the hospital by the family physician. Although he was frequently referred to by both the patient and her mother as being chronically ill with "heart trouble," he did apparently work regularly. The mother also worked and was successful in the business community in the sales field.

The patient remained in a private psychiatric hospital for about one month, after which she was removed by her mother because of "financial difficulties." The staff of the hospital felt she had benefited and that her withdrawal from treatment was premature.

The patient was next seen about 6 months later following an automobile accident. She had a number of minor musculoskeletal injuries from which she recovered quite slowly. During the treatment for these injuries she talked freely with her physician about her recollection of the previous boy-friend and her continued attraction to him. She also expressed much depression and stated that she had considered attempting suicide again.

About 2 months later, she had another automobile accident while driving alone. Again, her in-

juries were minor and she recovered satisfactorily but slowly.

During the ensuing 6 months she was seen several times for vague epigastric and lower abdominal symptoms. At times she expressed some awareness that these symptoms were related to nervous tension but at others she was quite insistent that there must be something wrong with her. While away from her home on vacation, she had an "emergency appendectomy."

In November of that year she returned to her physician for premarital examination and consultation. During this interview, she expressed strong guilt feelings about her coldness during sexual relations with her prospective husband and contrasted her feelings toward him with the pleasurable feelings she had with the boy-friend in the past. The physician suggested that the fiancée might also come in for consultation since he suspected that the marriage would be a difficult one. This offer was not accepted.

Following the marriage, they moved to Italy for one year where the husband took postgraduate training in art. The patient suffered from "rheumatic fever" with continuing somatic symptoms during this period. It was later discovered that she also made another suicidal attempt during this year.

Following their return to the United States, the husband re-entered graduate school and they returned to their hometown. The patient was seen several times during which she expressed much dissatisfaction with her marriage and much hostility toward her husband. Their sexual relations were still quite unsatisfactory and she had pain for several days following each attempt. For the first time the husband did come into the office, but he was quite defensive and guarded and insisted that the only thing wrong with the patient was a "vitamin deficiency."

The patient was seen on a regular basis during the next 4 months and allowed to ventilate her feelings toward her husband and herself. She was given small doses of phenothiazine and antidepressant medication with the statement that this would be carefully regulated so she would not be able to accumulate enough to hurt herself again.

Further attempts were made to get the husband to return to the office so he might gradually develop some better understanding of his marriage but these were unsuccessful.

The patient continued to express feelings of depression and thoughts of suicide and the family physician became quite concerned that this was a serious threat. She was seen in consultation at one of the teaching conferences at which time the consulting psychiatrist thought she was not a serious suicidal risk and that continued ventilation and supportive counseling was advisable. Intensive psychiatric treatment was again considered, but financial limitations prevented private psychiatric treatment. The husband's

strong opposition to psychiatry kept the patient from going to a community psychiatric agency.

A month later, during another explosive period of ventilation of her feelings toward her husband, she stated that she had put a knife under her pillow at night and intended to kill her husband if he attempted to make love to her again. Naturally the physician was disturbed by this and she was again referred for private psychiatric consultation with the psychiatrist who had seen her several times previously. He felt that hospitalization was not necessary at that time, that further psychiatric treatment was desirable if possible, and that continued support and acceptance of her ventilation by the family physician would be helpful if they could not or would not accept treatment. The patient was encouraged to apply to Vocational Rehabilitation for financial assistance, for vocational training, and also for medical treatment. She was seen in the office at regular intervals and the husband came with her on a few occasions.

It was the impression of her physician that she was somewhat improved during the next 3 months and that she and her husband were getting along a little better. During one interview they both stated that they felt their family situation had improved during the past year. At times the patient expressed positive feelings toward her husband for the first time, although she was predominantly hostile toward him because he was inconsiderate of her and she could not depend on him for understanding and support when she needed it. She also made the first contact with Vocational Rehabilitation and indicated an interest in returning there. On the last visit in early January she stated she was feeling pretty well although she appeared depressed. She also was pleased that her husband had made straight A's in the previous school quarter.

She missed her next appointment and was not seen or heard from until the time of her hospitalization 6 weeks later.

At that time, she again had taken a large amount of sedatives and went to sleep out-of-doors in cold weather. When found, she was profoundly comatose and hypothermic but, amazingly, recovered without evidence of permanent damage.

Following her recovery from this episode, the patient remained in the hospital for an additional 2 weeks. This time was used for further symptomatic treatment and convalescence from a severe thrombophlebitis of the right leg and in evaluation of the present and possible future relationship with her husband. The husband was firmly informed of the seriousness of her psychiatric illness, her extreme dependency needs, her hostility towards him, and of the necessity of his acceptance of her illness. This was done purposely to evaluate his capacity for accepting and supplying her emotional needs before she left the hospital. Initially he appeared quite concerned, understanding, and willing to make a

greater effort toward supporting her, and the physician hoped that they might develop a more satisfactory marital adjustment.

Following her discharge the patient was seen frequently for brief supportive interviews and she and the husband were seen together several times to further evaluate their capacity to get along together. It soon became apparent that the husband could not accept her hostility and dependency, and their joint interviews deteriorated into explosive tirades at each other, with both attempting to put the primary responsibility for continuing the marriage on the other partner.

It was now apparent that they could not satisfactorily continue their family relationship, and when the patient expressed this same judgment it was accepted by the physician. A stormy divorce procedure ensued during which the patient was continued on medication and frequent brief supportive interviews. The patient expressed even greater hostility towards her husband and this seemed to stabilize her personality in that she showed no bizarre or self-destructive thoughts or actions during this period.

Following the divorce, she again expressed interest in assistance from Vocational Rehabilitation Service and made another contact there. Since it is the policy of this agency in this state, that therapy be provided only by a specialist, she was sent by Vocational Rehabilitation to the psychiatrist who had previously seen her in the teaching conferences. As he was unable to schedule her for personal interviews because of his busy schedule, her psychotherapy was actually provided by a clinical psychologist in his employ.

The patient attended business college with a very satisfactory academic record and at the same time obtained part-time employment on her own initiative as a clerk-receptionist in an office. She returned to live with her parents.

During the next 6 months, she had several minor crises brought on by disagreements at home or by disagreements with a student whom she was dating. On each of these occasions she returned to her family physician, and initially presented with somatic complaints such as fatigue, prolonged colds, or "anemia." With little difficulty, the actual problem was clarified and she was allowed to ventilate, given supportive medication and advised to continue with her regular psychotherapy sessions. At the present time she is attempting to find regular employment, but delaying this by minor illnesses. She is also continuing an erratic relationship with a student slightly younger than herself who has previously been married and divorced. Further complications will not be surprising.

Summary

In recent years much emphasis has been placed on the need for more knowledge of

and application of psychiatric principles in the everyday practice of medicine. Most nonpsychiatrists would feel that they should not attempt to deal with serious psychiatric illnesses such as schizophrenia.

The alternative possibilities:—that every busy medical practice probably contains patients with serious psychiatric illness which is unrecognized, that physicians may be faced with psychiatric emergencies without available help from a psychiatrist, that awareness of a correct psychiatric diagnosis by the family physician would allow him to take safeguards to prevent a psychiatric emergency from arising, and that the physician who is aware of the correct diagnosis

may be very helpful in management of a patient with serious psychiatric illness without attempting formal psychotherapy are illustrated in a narrative case history covering a period of several years.

1209 Euclid Ave.,
Knoxville, Tenn. 37921

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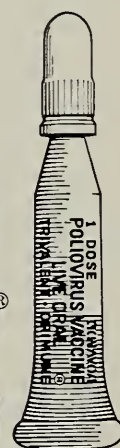
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CASE REPORT

Pre-Invasive Cervical Carcinoma and Invasive Endometrial Carcinoma

Samuel S. Lambeth, M.D. and
Elgin P. Kintner, M.D.,* Maryville, Tenn.

The coexistence of preinvasive cancer of the cervix and invasive endometrial cancer in the same uterus is extremely rare. As far as we can determine, this combination has been reported only 3 times previously in the American literature.^{1,2,3} Before considering this diagnosis, strict attention must be given to ruling out the possibility that one malignancy represents an extension from the other.

Case Report

A 54 year old white widow (Hospital No. 138-548) was admitted to the Blount Memorial Hospital on Sept. 27, 1966, with the chief complaint of intermittent bloody vaginal discharge of 2 years duration. She had had one normal delivery 38 years before. The menopause occurred when she was 38 years old. She had had satisfactory general health except for considerable gain in weight over the past 10 years.

The physical examination was essentially normal except for the obesity (291 pounds, 66 inches in height). This made interpretation of the pelvic findings difficult. X-ray studies of the chest and kidneys did not show any abnormality. A cervical smear was reported as class II with a few atypical cells. A glucose tolerance test revealed mild diabetes mellitus.

On Sept. 30, pelvic examination under anesthesia revealed the cervix to be grossly normal. The uterine body was not enlarged and was freely movable. There were no adnexal masses.

Because of the unexplained uterine bleeding, cold-knife cervical conization and curettement of the endometrium were performed. A considerable amount of endometrial tissue, grossly suggestive of carcinoma was obtained. After immediate frozen section with the cryostat, the cervical and endometrial tissue was examined by the pathologist. His diagnoses were invasive adenocarcinoma of the endometrium and preinvasive squamous cell cervical cancer.

A real and debatable problem of proper management for this individual was thus presented. Because the endometrial lesion was microscopically well differentiated and the uterus was of normal size and movable, immediate abdominal hysterectomy was elected.

*From the Blount Memorial Hospital, Maryville, Tenn.

Exploration of the pelvis showed no signs of metastases. The upper abdomen was normal.

The uterus, both tubes and ovaries were removed completely. Great difficulty was encountered in obtaining good hemostasis because the patient's extreme obesity prevented good exposure in the operative field. Satisfactory ligation of the paracervical pedicles was never accomplished. The patient received 4 whole blood transfusions of 500 ml. each during the operation. Bleeding was finally controlled after a two inch gauze pack had been so placed in the pelvis that it could be withdrawn through the vagina. The abdomen was then closed in layers with interrupted cotton sutures.

Permanent microscopic slide studies of the whole uterus confirmed the report on cryostat tissue. There was slight myometrial invasion of the endometrial tumor. The microscopic appearance of the lesions is shown in figures 1 and 2.

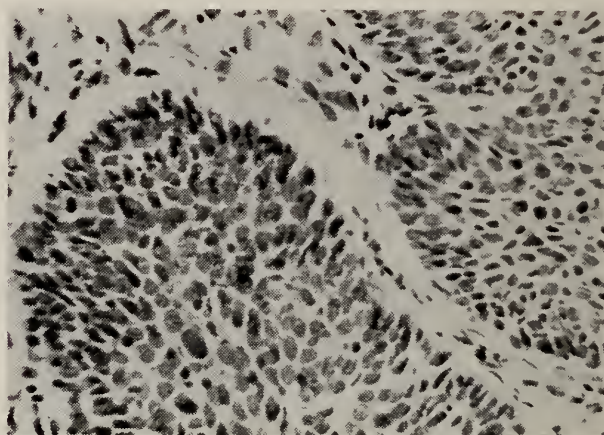


FIG. 1. The frozen section preparation of the cervix shows squamous cell carcinoma in-situ.

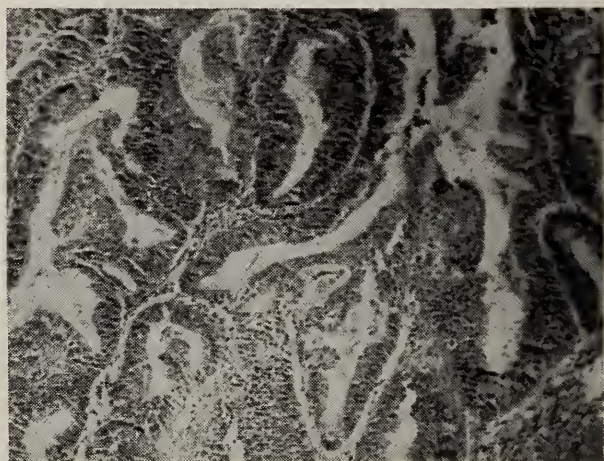


FIG. 2. The frozen section preparation of the endometrium showing a well differentiated adenocarcinoma.

Our final tissue diagnoses were confirmed by the Armed Forces Institute of Pathology. (No. 1229082)

The patient's postoperative course was satisfactory. The gauze packing was withdrawn

gradually through the vagina during the first week. At the last examination on Dec. 29, 1966, the vaginal vault revealed no signs of infection or prolapse. The follow-up cancer smear on that date was negative for malignant cells.

Discussion

Simultaneous multiple primary genital malignancies are of interest because of speculation about the causes for their rare occurrence. Radman and Korman⁴ recently published a review of this subject. They quoted figures that only 4 of 1647 patients with either cervical or endometrial carcinoma had both lesions and emphasized the rarity of double primary malignant genital tumors. Lynch⁵ reviewed this subject with similar findings.

Since only 4 patients with simultaneous preinvasive cervical and invasive endometrial cancer have been reported, this form of double genital malignancy must be considered the rarest in this interesting group. Certain features of these patients as reported are possibly significant. Three were post-menopausal. For only one was a positive cancer smear reported before operation. Abnormal uterine bleeding was the presenting complaint.

The clinical characteristics of patients with preinvasive cervical and invasive endometrial cancer do not shed any light on why this combination occurs so rarely. McLeod and Cavanagh² have suggested that the reason for this rarity may be that the etiologic factors are different from these two tumors. There may be a host characteristic which predisposes some women to endometrial carcinoma and protects them from cervical cancer.

The practical point to remember is that both lesions may occur in the same patient. Although the cervical smear is negative, the cervix should always be studied when the uterus is curetted for abnormal menopausal or post-menopausal bleeding. Some use multiple biopsies. We prefer a cold-knife cone.

Summary

(1.) A patient with simultaneously developing preinvasive squamous cell carcinoma of the cervix and invasive adenocarcinoma of the endometrium has been presented.

(2.) Some of the literature upon multiple genital malignancies has been reviewed. All of the reported cases of in-situ cervical and invasive endometrial cancer have occurred at or after the menopause.

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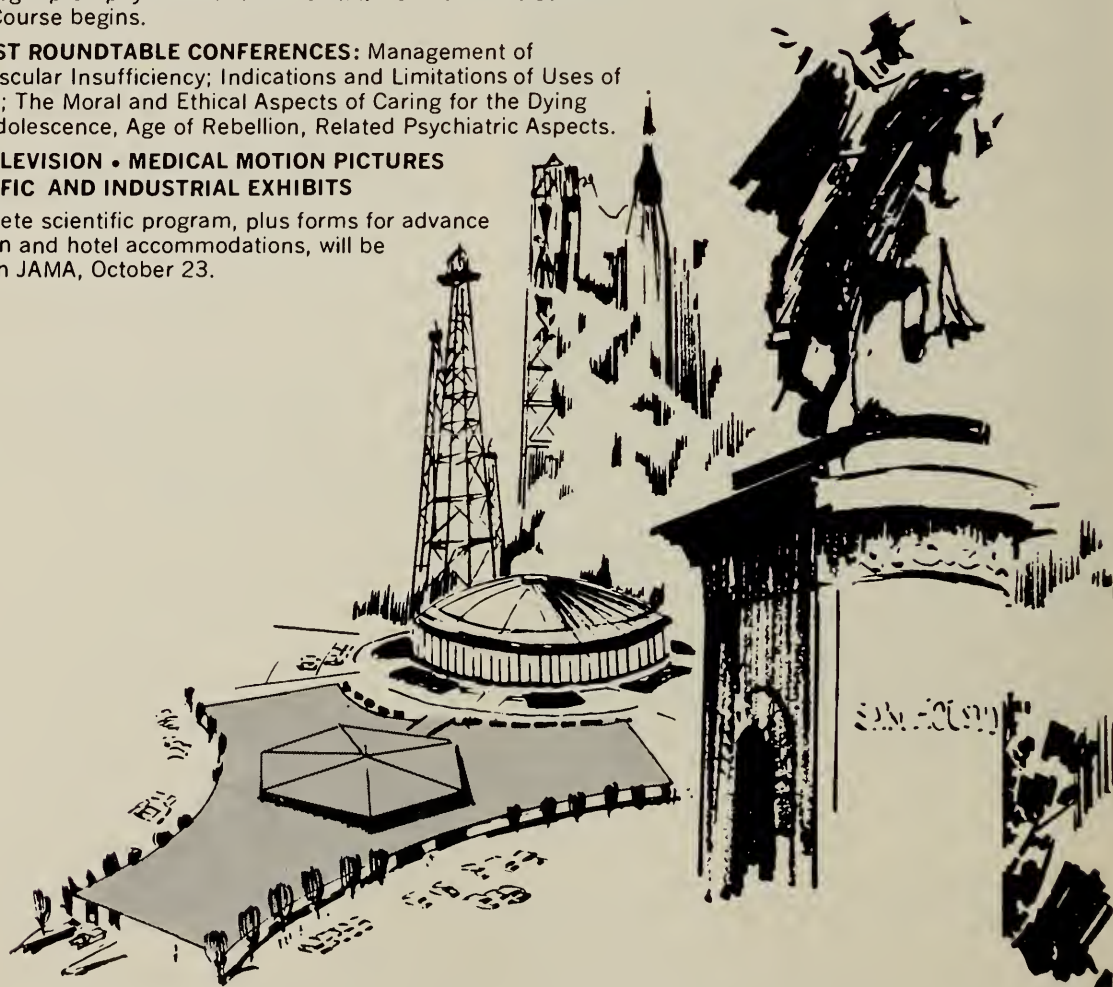
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From the
Executive
Director

E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Actions of the Board of Trustees—October 8, 1967

State Funded Health Programs

● The major portion of the Board meeting was devoted to a report presented by the Chairman of the Committee on Governmental Medical Services, relative to meetings with state officials on payments to physicians for state funded health care programs. Conferences were held on August 27th and 31st with the Governor and State Commissioners pertaining to payments for physicians' services. In these meetings, TMA representatives strongly pointed out to State officials that usual and customary payments for physicians' services is the policy of the Tennessee Medical Association. Numerous problems exist for the State Government in payment to physicians in view of the fact that insufficient funds exist for the State's health care programs. TMA has pointed out that payments to physicians for examinations and for medical services, should be kept separate. TMA's representatives stated that physicians should present the state their usual and customary charge for services under all state funded health care programs.

Tennessee—Mid South Regional Medical Program

● The Board heard a report from TMA's Committee Chairman, Dr. W. O. Vaughan, on the mid-South Regional Medical Program, including a review of the on-sight survey team inspection on September 25-26. Dr. Vaughan reviewed for the Board the degree of liaison and activity occurring in the program at present.

TMA has strongly recommended additional representation on the Advisory Group and it was agreed that nominees for appointment be submitted by TMA. The suggested physicians for additional appointment representing the Tennessee Medical Association have been made.

A report also was made relative to the Memphis Regional Medical Program, and included the organization and activities occurring in the various centers of that area.

The Trustees directed that a letter be written to the President and Secretary of each County Medical Society regarding the regional medical program and advising them of the availability of consultative services through TMA. Also, a letter to notify the chief of staff of each hospital in Tennessee, advising of the consultative service and offering guidance and information that can be furnished by TMA through the committee for those contemplating requests for operational grants under the regional medical programs.

Since the Law states that the regional medical program shall not affect doctor-patient relationships or infringe upon the traditional practice of medicine, it was suggested that this be kept in mind for future guidance in these programs.

Abortion and PKU Testimony

● The Board heard a report from the meetings conducted in Knoxville by the Public and Mental Health Committee of the Tennessee General Assembly on two bills now pending in the Legislature, namely PKU (testing in newborn) and the bill to amend the abortion statutes. Testimony was presented by

Appointments to Tennessee Board of Nursing

TMA representatives before the committee on these two important issues at the Knoxville meeting.

● The Trustees previously had submitted six physicians names to the Governor for subsequent appointment of two as members of the Tennessee Board of Nursing. The Governor has appointed Dr. J. Malcolm Aste of Memphis for a two-year term and Dr. Byron O. Garner of Union City for a four-year term on the Board.

Other Actions

● The Board approved the new system of membership record-keeping as demonstrated to the Trustees at the meeting --- Heard a report from an investment counselor, Mr. Finis Nelson, Nashville, relative to uses of TMA's reserves --- Took action to urge physicians throughout Tennessee to vigorously support and continue the program of recruitment of physicians for Viet Nam --- Approved a plan for offering a door prize to help stimulate interest in medical exhibitors at the 1968 annual TMA meeting --- Approved sponsoring a State and County Medical Society Leadership Conference in the fall of 1968 --- Considered recommendations for appointment to AMA Councils and Committees; and recommended that Dr. G. Baker Hubbard's name be submitted to the AMA Board of Trustees for possible appointment to the AMA Committee on Planning and Development; and Dr. Tom E. Nesbitt for consideration of appointment to the Council on Legislative Activities --- Approved the Third Quarter Financial Statement --- Approved the TMA budget for the calendar and fiscal year, 1968 --- Considered a letter from the Tennessee Association of Community Action Directors for endorsement of a statewide family planning program but directed that the organization should seek guidance through the State Department of Public Health --- Approved a recommendation of the Committee on Emergency and Disaster Medical Care to rename the committee the "Committee on Emergency Medical Services" and accepted a request that the Board of Trustees petition the Governor to appoint an Advisory Committee on Emergency Medical Services in the State --- Approved the dates of April 9-10-11 for the annual meeting of the Tennessee Medical Association in 1970, the meeting to be held in Memphis.

Timely Statement

● "With the average American now paying 35 cents of every dollar income for taxes to government --- local and national --- there has to be a stopping point. Despite the appeal of many programs, this nation must determine its priorities, using our limited resources only where absolutely necessary. There is little evidence of any desire to do so, and I have little desire to raise taxes till it is done." --- (Representative Wm. Brock, R. Tennessee).

Abortion Laws Enacted in Three Other States

● California, Colorado and North Carolina have all enacted revised statutes this year liberalizing their abortion laws. The statutes in Colorado and North Carolina are substantially similar. They permit abortions when necessary to save the life of the mother or prevent a grave impairment of her health, or when the pregnancy resulted from rape or incest, or when there is substantial risk that the child will be born with serious physical or mental defect. The California statute omits the provision permitting abortion when the child is likely to be born deformed. The North Carolina statute requires that the patient have four months residency in the State, except in emergencies threatening the woman's life. Neither the California nor the Colorado laws contain residency requirements.

Geographic Representation on AMA Board

● The AMA House of Delegates had indicated its preference for geographical representation on its Board of Trustees. At their recent meeting in Atlantic City, N.J., the Delegates rejected a proposal which would have permitted Trustee nominees to run at large. Current members of the Board come from 15 states coast to coast and border to border, including Tennessee.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Record Attendance at Rural Health Meeting

● More than 400 persons attended the fifth annual Rural Health Conference in Memphis October 25th. The number far exceeded the four previous rural health conferences which have been conducted in Knoxville, Jackson, Nashville and Cleveland.

Co-sponsored by the Tennessee Medical Association, Tennessee Farm Bureau Federation and University of Tennessee Agricultural Extension Service, the one-day affair emphasized the need for rural emergency health care plans.

Dr. Bond L. Bible, staff secretary of the AMA's Council on Rural Health discussed the council's interest and efforts in improving rural emergency medical care. Mr. Robert Odom, director of Health Mobilization for the Tennessee Department of Public Health presented a paper which encouraged rural residents to enroll in medical self-help programs.

Other participants on the program were Dr. Robert F. Lash, director of the Knoxville Poison Control Center; Mr. Ralph K. Disser, program director of Health Careers for Tennessee; Mr. Lonnie Safley, assistant to the President of the Tennessee Farm Bureau; Mr. Bernard P. Harrison, director of the AMA Legal Department and Dr. Webster Pendergrass, Dean of the University of Tennessee College of Agriculture.

Dr. Julian C. Lentz of Maryville is chairman of the TMA Rural Health Committee and presided over the meeting.

AMA Meets In Houston

● The 21st annual AMA Clinical Convention will be held in Houston, Texas from November 26th to November 29th. More than 3,000 physicians are expected to attend.

The AMA's policy-making body, the House of Delegates, will meet in the Shamrock-Hilton Hotel while all scientific meetings plus the industrial and scientific exhibits will be in Houston's new Astrodome, a part of the Astrodome complex.

The convention is designed especially for the physician in practice. It will include scientific sessions on 18 major topics, post-graduate medical courses, breakfast round-table conferences, closed-circuit television and medical motion picture programs, and more than 120 scientific exhibits.

Of special interest will be the postgraduate courses, expanded to four this year. They are: Fluid and Electrolyte Balance, Oncology, Cardiovascular Disease and Obstetrics and Gynecology.

Utilization Review Conference

● The Second National AMA Conference on Utilization Review will be held in conjunction with the Clinical Convention in Houston on Saturday, November 25th from 9 a.m. until 5 p.m. at the Shamrock-Hilton Hotel.

Topics to be discussed include: patterns of use, utilization review and third parties, establishing standards and regional coordination.

Sports Conference Also in Houston

● The AMA's Committee on Medical Aspects of Sports will hold its 9th National Conference in Houston November 26th. Keeping athletes in top shape and preventing sports in-

juries will be the main topics when coaches, trainers and other sports authorities join team physicians during the all-day affair. The conference is open to all interested physicians and key non-medical athletic personnel.

Community Health Week Observed

● The fifth annual Community Health Week was observed in Tennessee October 15-21 with many local medical societies making special efforts to improve their communities' health and health education.

Governor Buford Ellington proclaimed the week officially by issuing a proclamation in which he stated, "Great strides have been made locally, as well as nationally, in the endless battle to conquer disease and make life healthier, happier and more productive for all of us and future generations."

Mr. Ellington pointed out that "our wealth of health resources is one of the community's greatest assets. Good health and adequate health facilities and services can exist only in an atmosphere of continuing community interest and cooperation."

Dr. Oscar M. McCallum of Henderson is chairman of the TMA Communications and Public Service committee and was present in the governor's office when the proclamation was issued.

Medicare Enrollment

● The first general enrollment period for persons 65 and over to enroll for Part B benefits under Medicare has been extended to March 31, 1968. Under previous law, the enrollment period was scheduled to run from October 1, 1967 through December 31, 1967.

The current \$3 monthly Part B insurance premium will also remain in effect through March, 1968. An increase in the rate is expected and will be announced by the Secretary of HEW before January, 1968.

Health Guide Into 3rd Printing

● Today's Health Guide, the AMA's fast-selling manual of health information, has gone into its third printing, and is now available in book stores.

The 90-chapter, 640-page book is a compendium of information designed to help the family make the best and most economical use of health services. More than 250,000 copies have been sold.

The Communications and Public Service Committee of TMA, together with local medical societies, is currently in the process of placing a copy of the book in the library of each Tennessee high school.

Physicians should urge patients to obtain the health guide for use in the home. They are available by writing the American Medical Association, 535 N. Dearborn Street, Chicago.

Health Insurance Coverage Increases

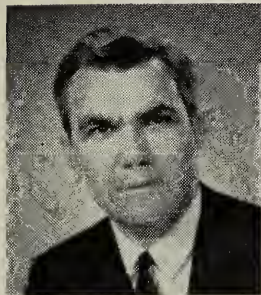
● At the end of 1966, 85 per cent of the U. S. civilian, non-institutional population under age 65 were covered by private hospital expense insurance -- a growth of more than 7 million over the preceding year, according to the Health Insurance Council.

Much of the remaining 15 per cent include the indigent and near-indigent, as well as dependents of military personnel.

Surgical expense protection was carried by 137 million persons under 65 at the end of 1966 which was 7 million more than a year previous. A total of 55 million persons also were covered by major medical insurance policies, an increase of 5 million over the preceding year.

The Health Insurance Association of America estimates that of every \$5 spent by insured persons for hospital care, a minimum of \$4 was recovered via insurance. For surgical services, it was likewise \$4 of every \$5.

President's Page



DR. KRESSENBERG

Representation on the Governing Boards of Hospitals

"Each hospital should have at least one voting physician member on its governing board, appointed by, or elected by the hospital medical staff." The above is a policy recommendation of the Tennessee Medical Association and the American Medical Association. Similar policy statements have been adopted by the American College of Surgeons and the American College of Physicians.

Further, the House of Delegates of the AMA requested that the Joint Commission on Accreditation of Hospitals, through the medium of its publications and its surveys, to encourage the acceptance of a physician trustee "with full voting rights as the most effective form of liaison between the medical staff and hospital governing authorities." Full implementation of this principle is being sought through the AMA Commissioners to the Joint Commission on Accreditation of Hospitals.

Opposition based on the argument that this would create a conflict of interest, that physicians have a limited knowledge of hospital operations, and that a physician member would act primarily to satisfy the needs of the medical staff which in the long run would be counter to the interest of the hospital is not valid. In fact his interest in, and personal knowledge of patient care, which is the true roll of the hospital, would more likely have a beneficial effect on trustee thinking.

This wise policy should now be expedited by the various hospital staffs in Tennessee and through the force of sound logic urged upon the trustees of their respective hospitals.

The time is long past when there can be a separation between the concerns of the governing boards of hospitals and their medical staffs. Increasingly their joint orientation is toward the provision of excellent medical care. Since members of the public, and government have sought a voice in these matters, it is but logical that the profession have a more tangible presence in the high policy bodies which are charged with the role of providing the best possible medical care in hospitals.

It should be emphasized that no known antagonisms between governing boards and hospital staffs have moved these decisions. Implementation of this action is urged because it is timely and logical.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn. 37203

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NOVEMBER, 1967

EDITORIAL

CODE OF FAIR PRACTICES

The drug industry has been fair game now over a number of years for any Congressman or Senator who wishes something to shoot at while standing for re-election. Congressional hearings, newspaper headlines and television appearances offer wonderful publicity, particularly if a successful whipping boy may be found. Drugs and especially their price are a topic particularly dear to any head of a household who pays the bills. He has neither the knowledge nor the background to equate the bills for an antibiotic, let us say, to the hospital costs, mortality and morbidity resulting from infections of one type or another of the preantibiotic era. One could name examples without end. In addition to the periodic fulminations of congressmen there has been in recent years the constant harassment by the Food and Drug Administration.

However, nothing is all white nor all black and the shortcomings of some often reflects upon all. Merited restrictions upon

some practices by a segment of an industry must of necessity be applied to all.

In answer to this, the Pharmaceutical Manufacturers Association publicized several weeks ago a new *Code of Fair Practices*, described by its President C. Joseph Stetler as a "clear demonstration of the industry's good faith and determination to safeguard and improve the high standards of drug advertising and promotion." To be certain that the Code complies with Federal law, it was submitted to the Department of Justice and was cleared by it.

A review of the Codes indicates that by a "drug product" is meant any pharmaceutical or biologic product intended for use in human beings and which is promoted and advertised to the medical profession rather than to the lay public. It defines "promotional communications" as journal advertising, material for mailing, exhibits and written instructions to the medical profession, which includes allied professions in the health field as well.

The Code indicates that "complete and accurate information concerning marketed drug products" should be available to the medical profession as well as the indications for their use, the dosage and warnings as to side effects, contraindications to use and related information. Claims as to the efficacy of the products must be based "upon substantial scientific evidence or other responsible medical opinion." In this regard the Code also cautions that quotations from the medical literature or personal communications by investigators should not be distorted, i.e. taken out of context. If comparisons are made with other drug products they should be on a scientific basis.

The Code, furthermore, prohibits a manufacturer from publicizing or promoting a drug product before the required approval of the drug for marketing is obtained. Also, promotional communications should have medical clearance before their release.

Finally, the Pharmaceutical Manufacturers Association expects its members to adhere strictly to the principles of this code. Its members are enjoined to report to the President of the Association any breach of this Code by any other member. In such an event an ad hoc committee will investigate

the alleged breach of the Code and report its findings to the Board of Directors. The Board, upon evidence that a member firm "clearly and persistently violates the Code, may request that member to resign from the Association."

An outsider would interpret the promulgation of this *Code of Fair Practices* as an effort by the Pharmaceutical Manufacturers Association to control from within any member who resorts to shady practices in sales or promotions. Thereby the more ethical of the pharmaceutical firms may divert legislative blows which are deserved possibly only by a few. Finally, the Code recognizes a responsibility for the public good.

R. H. K.

IN MEMORIAM

Allen, Chester D., Memphis. Died October 5, 1967, Age 76. Graduate of University of Tennessee College of Medicine, 1915. Member of Memphis-Shelby County Medical Society.

Blevins, Sells, Jonesboro. Died August 6, 1967, Age 47. Graduate of University of Tennessee College of Medicine, 1955. Member of Washington-Carter-Unicoi County Medical Society.

Conger, Robert M., Lexington. Died September 4, 1967, Age 58. Graduate of University of Tennessee College of Medicine, 1935. Member of Consolidated Medical Assembly of West Tennessee.

Trevathan, Leander E., Bruceton. Died September 11, 1967, Age 92. Graduate of Vanderbilt University School of Medicine, 1912. Member of Consolidated Medical Assembly of West Tennessee.

Buchanan, Robert Sr., Shackle Island. Died October 11, 1967, Age 89. Member of Nashville Academy of Medicine. Graduate of Medical School of University of Nashville, 1908.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane-Anderson County Medical Society

Dr. John Simmons, Nashville, associate professor of urology, Vanderbilt, and chief of urology, VA Hospital, was guest speaker at the dinner meeting of the Roane-Anderson County Medical Society, held in

Oak Ridge on September 26. Dr. Simmons subject was "Ureteral Reflux in Adults & Children."

Members of the Society, their wives and guests attended the annual Dwight Clark Memorial Lecture on October 24th, held at the Holiday Inn in Oak Ridge. The lecture entitled, "A Gastro-Intestinal Travelogue" (a motion picture survey of lesions of the GI tract), was presented by Dr. Hilger Perry Jenkins, professor of surgery, University of Chicago, School of Medicine, and Chairman of the Committee on Medical Motion Pictures of the American College of Surgeons.

A buffet dinner preceded the lecture for all attending.

Consolidated Medical Assembly of West Tennessee

The Consolidated Medical Assembly of West Tennessee met in regular session at the New Southern Motor Hotel on September 5th, preceded with a session of the House of Delegates. Guest speaker, Dr. James H. Druff, superintendent of Western State Hospital, spoke on Western State and its relationship to medical society.

Chattanooga-Hamilton County Medical Society

The scientific program for the meeting of the Society on November 7th was presented by Dr. Roger G. Vieth and Dr. John J. Killeffer. Dr. Vieth's subject was "Anterior Venous Malformations" and Dr. Killeffer spoke on "Correction of Genu Valgum in Adolescence by Stapling Epiphyseas." The meeting was held in the auditorium of the Interstate Building.

Memphis-Shelby County Medical Society

The Society met in regular session in the auditorium of the Institute of Pathology, University of Tennessee, on October 3rd. Dr. Robert C. Reeder presented the program entitled, "Emergency Care: Past, Present and Future." The meeting of the membership was followed with a session of the Society's House of Delegates.

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timed to work while your patient does

A study being conducted by the Department of Otolaryngology, Greater Baltimore Medical Center is stockpiling evidence that points to the fast action and prolonged relief effected by Triaminic in the treatment of nasal congestion.

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Each timed-release tablet contains:

Phenylpropanolamine hydrochloride 50mg. Pyrilamine maleate 25mg. Pheniramine maleate 25mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets.

Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

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Knoxville Academy of Medicine

Dr. K. M. Kressenberg, President of the Tennessee Medical Association, discussed problems common to the TMA and county medical societies, at the meeting of the Academy on October 10th. Dr. Kressenberg's appearance before the society was a follow-up of a decision of the Board of Trustees that members of the Board should meet with all county societies in the state in an effort to establish better communication and cooperation between the state association and its component societies.

NATIONAL NEWS

The Month In Washington

(From the Washington Office, AMA)

The American Medical Association urged that Congress precisely define "public health services" to prevent the so-called "Partnership in Health" legislation being used as authority for unlimited expansion of government medicine. In a letter to Chairman Lister Hill (D., Ala.) of the Senate Committee on Labor and Public Welfare, Dr. F. J. L. Basingame, Executive Vice-President of AMA, said:

"We are especially concerned with a lack of definition with respect to comprehensive public health services. Neither 'comprehensive' nor 'public health services' is defined in the law or the bill. While we recognize there is supportable advantage in removing strict categorization of grant funds, we are concerned that the categorical indentification having been removed, there will no longer be any limitation on the health care which may be provided. Indeed, from testimony on this legislation by government officials, it would appear that our concern is justified. Is it the intent that the Congress is authorizing a program of *individual treatment for unidentified patients for unspecified conditions for unlimited services*? It is clear that the lack of definition of 'public health services' is, in effect, an invitation from Congress to unlimited expansion of 'public health' beyond its traditional role in the community.

"The AMA has supported, and continues to support the furnishing of public health services. We have also supported flexibility of operation within the state and local health departments as an effective tool for community health. We feel, however, that the distinction between the public and private health sectors should be delineated . . . in more positive terms than the mere prohibition against interference with the existing patterns of private professional practice. . . . Accordingly, the Association finds itself unable to support this portion of the legislation providing for an undefined program of comprehensive public health services."

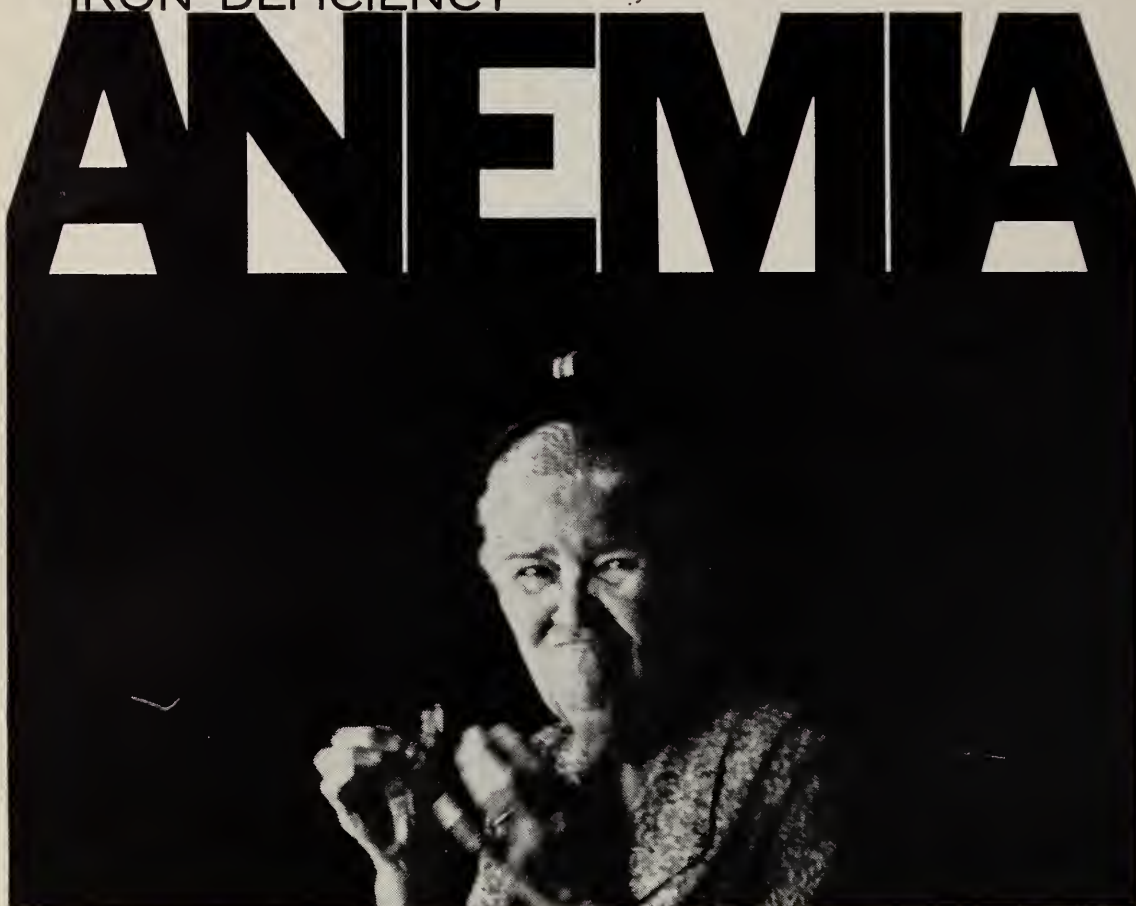
The AMA also opposed a provision for federal licensure of clinical laboratories on the ground that licensing of such facilities traditionally has been a state matter. "We believe that federal licensure of these facilities would establish an undesirable precedent."

The controversy over generic vs. brand name drugs was aired at hearings of the Senate Finance Committee and the Senate Small Business Monopoly Subcommittee. Chairman Russell B. Long (D., La.) of the Finance Committee planned to offer an amendment to the Social Security bill, which includes medicare and medicaid changes, to put the emphasis on generic drugs in government medical programs. The monopoly sub-committee, headed by Senator Gaylord Nelson (D., Wis.), was investigating drug pricing policies with the same objective as Long's proposal.

Long's proposal included the creation of a federal panel to select the highest quality but lowest cost prescription drugs for which patients would be reimbursed under government medical programs.

Both the Food and Drug Administration and the drug industry opposed establishment of such a committee and national formulary of drugs. FDA Commissioner James Goddard, M.D., said it would result in "an encroachment on the practice of medicine in such a way that I believe the physicians of this country would rise up in wrath. In essence the bill would impose upon the formulary committee the duty of evaluating every prescription drug used in

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There's as much iron . . . 250 mg. . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.



LAKESIDE

IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

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medical practice today—more than 5,000—and of providing a formulary of the drugs of choice. I would have to exclude drugs deemed unnecessary, therapeutically duplicative, or of unacceptable quality. The enormity of such a task should be borne in mind.”

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association joined Goddard and John W. Gardner, Secretary of Health, Education and Welfare, in urging that action on the matter be postponed until a report is made on a special study being conducted by HEW. The report is due December 1.

Stetler said the drug industry recognizes the government's responsibility to control federal expenditure in its drug purchase programs. But, he said, Long's proposal would put such a low ceiling on drug prices that it would “jeopardize the ability of quality, research-oriented pharmaceutical companies to perform effectively.” “The health of all of us and of future generations is dependent on the continued growth and vitality of a progressive and successful pharmaceutical industry.”

**

The federal government is planning on increasing the monthly medicare insurance rate for physicians' services for next year and 1969. The present rate is \$3 a month. The medicare law designated October 1 as the deadline for setting the rate for 1968 and 1969 but Congress approved legislation postponing the announcement until December 31.

John W. Gardner, Secretary of HEW, disclosed a possible increase from \$3 to \$4 in a letter to Senator John J. Williams, Del., ranking GOP member of the Senate Finance Committee.

The monthly premium is paid by persons 65 and older who elected to get benefits under Part B of the medicare program providing physician services.

Gardner said: “I would promulgate a rate of \$3.80 for the two-year period of 1968 and 1969, 25 cents of the increase being based upon our evaluation of the extent to which we believe the premium rate was below the actual cost for 1966-67 and 55 cents being the estimated additional cost to be expected

from an estimated increase in utilization and in physicians' fees.”

MEDICAL NEWS IN TENNESSEE

Tennessee Academy of General Practice

The 19th Annual Scientific Assembly and Congress of Delegates of the Tennessee Academy of General Practice was held November 1-3 in Gatlinburg with headquarters at the Civic Auditorium. The program, planned to bring together many well-known speakers, covered varied and interesting subjects. Speakers included: Captain George F. Bond, M.C., U.S. Navy, Washington, D. C.; Dr. Isadore Dyer, Department of Obstetrics and Gynecology, Tulane University School of Medicine, New Orleans; Dr. Walter W. Sackett, Jr., Miami, Fla.; Dr. Donald P. Pinkel, Medical Director, St. Jude Children's Research Hospital, Memphis; Dr. Nicholas J. Pisacano, Department of Medicine, University of Kentucky College of Medicine, Lexington; Dr. Arthur T. Evans, Chairman, Department of Urology, University of Cincinnati College of Medicine, Cincinnati; Dr. Kirkland W. Todd, Jr., Assistant Professor of Surgery, Vanderbilt University School of Medicine, Nashville; Dr. James D. Hardy, Professor and Chairman, Department of Surgery, University of Mississippi School of Medicine, Jackson; Dr. James D. Beard, Ph.D., Assistant Professor of Clinical Physiology, U.T. College of Medicine, Memphis; Dr. David H. Knott, Ph.D., Assistant Professor of Clinical Physiology, U.T. College of Medicine, and Medical Director, Alcoholic Rehabilitation Unit, Tenn. Psychiatric Hospital & Institute; Dr. Charles W. Pemberton, Regional Program Director, Cancer Control Branch, Division of Chronic Diseases, USPHS, Kansas City; and Dr. Boyer M. Brady, Jr., Associate Professor of Clinical Radiology, U.T. College of Medicine, Memphis.

Social events included a welcoming reception on Wednesday evening, Nov. 1 followed on Thursday evening by the annual dinner-dance, and a Sherry Brunch honoring the wives on Friday.



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B and C vitamins are part of therapy: An imbalance of water-soluble vitamins and chronic illness often go hand in hand. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, are formulated to meet the increased metabolic demands of patients with physiologic stress. In chronic illness, as with many stress conditions, STRESSCAPS vitamins are therapy.



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Each capsule contains:

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Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

TMA Auxiliary

The Fall Board Meeting and Conference of the Woman's Auxiliary to the Tennessee Medical Association was held at the Albert Pick Motel in Nashville September 12-13. A luncheon conference sponsored by IMPACT (Independent Medicine's Political Action Committee, Tennessee) featured speakers from the state and national PAC organizations: Dr. Richard C. Sexton, Chairman, IMPACT Board of Directors; Mrs. Frank Gastinau, Indianapolis, Auxiliary representative to the American Medical Political Action Committee; Mr. Edwin Smith, Atlanta, Field Representative, AMPAC; and Mrs. Arch Y. Smith, TMA Auxiliary representative to IMPACT.

Sessions included seminars on press and publicity, health careers and health project. Mrs. J. Paul Sauvageot, national representative and president of the Woman's Auxiliary to the Ohio State Medical Auxiliary, spoke on press and publicity. A panel discussion on health careers was presented by Dr. Richard Cannon, dean of Allied Health Education at Vanderbilt University, Mr. Ralph Disser, Executive Project Director for health careers in Tennessee, and Mrs. Carl D. Marsh, health careers chairman for Shelby County. Dr. K. M. Kressenberg, TMA President, was the banquet speaker.

Tennessee Pediatric Society

The annual meeting of the Tennessee Pediatric Society, September 10-12 was held at the Holiday Inn-Downtown in Chattanooga. Prominent speakers lecturing on the subjects of asthma, the battered-child syndrome, and management of the child with chronic asthma, included: Dr. Audrey K. Brown, professor of pediatrics at the Medical College of Georgetown, Augusta; Dr. Robert Hagerty, professor and chairman of the department of pediatrics of the University of Medicine and Dentistry, Rochester, N. Y.; and Dr. William A. Howard, professor and chairman of the department of pediatrics, George Washington University, Washington, D.C.

Dr. George S. Lovejoy, chief of staff of Lebonheur Children's Hospital, Memphis, was elected chairman of the combined Tennessee State Pediatric Society and the State

Chapter of the American Academy of Pediatrics. Dr. Stewart Smith, Chattanooga, was named alternate chairman and Dr. William Wadlington, Nashville, is Secretary-Treasurer.

University of Tennessee College of Medicine

PARTICIPATING FACULTY: Four members of the Department of Surgery participated in the annual clinical congress of the American College of Surgeons in Chicago, October, 6-10. Dr. Harwell Wilson, professor and department chairman and national treasurer of the American College of Surgeons, conducted a teaching motion picture program designed to emphasize important principles of diagnosis and advances in surgical technique. Dr. Paul Sherman, assistant professor, presented the results of a collaborative research project carried out in the department and in the laboratories of Stanford University. The research deals with a new method of measuring blood volume in surgical patients by the use of a new method of labeling biological molecules as tracer tags, known as spin labeled albumin. Dr. James Pate, Professor, with collaboration of Dr. Orin Butterick, clinical assistant professor, and Dr. Rodney Wolf, instructor, presented an exhibit demonstrating surgical techniques developed in treatment of massive pulmonary embolus, involving use of the heart-lung bypass machine. Dr. Francis Murphey, head of neurosurgery, discussed pain caused by rupture of an intervertebral disc in the neck and outlined methods of diagnosis and treatment.

The University of Tennessee dedicated the \$1.1 million addition to the Medical Research Center of the UT Memorial Hospital at Knoxville, September 22nd. The program began with doctors and scientists joining for special medical-surgical rounds at the hospital. A symposium on "Creativity in Scientific Research" was presented by: Dr. Alexander Hollaender, senior research adviser of ORNL's Biology Division; Dr. Henry Eyring, dean of the graduate school of the University of Utah; Dr. Alexander B. Gutman, professor of medicine at Mt. Sinai

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Medical School, New York; and Dr. Carl V. Moore, head of the Washington University School of Medicine, St. Louis.

Congressman Joe L. Evins was the featured speaker for an invitational banquet at the University Center that evening.

The addition to the Research Center was completed in late 1965 and since that time a staff of top researchers has been brought together. Dr. Amoz I. Chernoff, director of the facility, now has 18 professional scientists and a staff of nearly 70 at work on ten major research projects in the broad area of hematology. More than \$1 million in equipment has been installed in the structure. The addition to the center was made possible by an intensive fund campaign sponsored by the Greater Knoxville Chamber of Commerce. Money from federal, state, city and county governments was placed in the project, along with gifts from private sources.

Vanderbilt University School of Medicine

Dr. Grant W. Liddle, endocrinologist and professor and chief of endocrine service at Vanderbilt University has been appointed to the National Advisory Arthritis and Metabolic Diseases Council. As a member of the Council, Dr. Liddle will advise and make recommendations to the surgeon general and to the director of the National Institute of Arthritis and Metabolic Diseases on grants and awards.

Dr. William S. Coppage, Jr., associate professor of medicine at Vanderbilt University, has been named chief of staff at the Veterans's Administration Hospital. Dr. Coppage served as attending physician at the hospital in 1960 and as a consultant in endocrinology in 1961-62.

PERSONAL NEWS

Dr. Henry T. Kirby-Smith, Sewanee, is the recipient of the Outstanding Middle Tennessee Physician Award. An engraved plaque was presented to Dr. Kirby-Smith by the Middle Tennessee Medical Association at its 145th Semi-annual meeting in Gallatin.

Dr. Addison B. Scoville, Jr., Nashville, has resigned as chairman of the Metropolitan Board of Health, effective October 20. Dr. Scoville, who has been on the health board for nine years, and chairman for the last two years, has had a beneficial influence on public health service in the community.

Dr. David McCallie, Chattanooga, conducted a panel discussion on "Nursing Today in Coronary Care Units" at the quarterly meeting of the local League for Nursing.

Dr. T. K. Ballard, Jackson, has been re-elected chairman of the Madison County Board of Health.

Dr. Joe E. Monger, specialist in internal medicine, is now practicing in Cleveland. He is associated with Drs. Robert Cofer, William Smith, and Robert Allen.

Dr. Richard O. Cannon, Dean of the division of allied health professions at Vanderbilt University Medical Center, has been elected to the Board of Trustees of the American Hospital Association.

Dr. J. Fred Terry, Cookeville, has been appointed to the board of directors of the First National Bank in that city.

Chattanooga physician, **Dr. L. Spires Whitaker**, one of the area's most active leaders in efforts to arouse public opinion for effective air pollution control, was one of eight persons appointed by Governor Ellington to serve on the State's new Air Pollution Control Board. The Board was established under the Air Pollution Law passed earlier this year by the legislature, and Dr. Whitaker will represent the Medical profession as a physician experienced in the health effects of pollution.

Dr. Wm. N. Cook, Columbia, has been named director of the Giles County Health Department. Dr. Cook served as director of the Maury County Health Department from 1954-67.

Dr. Julian K. Welch, Brownsville was named president of the Haywood County Unit, American Cancer Society on September 18th.

Drs. W. G. Frost, E. T. Pearson and E. L. Caudill, Sr., Elizabethton, were honored by the Selective Service System with certificates of appreciation and lapel pins for twenty-five years service to the nation and the system as local board medical advisors.

Dr. J. Malcolm Aste, Memphis, has been appointed to the Tennessee Board of Nursing by Governor Ellington. **Dr. Byron O. Garner**, Union City, was also re-elected to serve a four-year term on the Board. Dr. Aste will serve a two-year term.

At a recent meeting of the East Tennessee Radiological Society, the following officers were elected: **Dr. Homer P. Williams**, Bristol, President; **Dr. Robert F. Maddox**, Kingsport, President-Elect; **Dr. William A. Nelson**, Knoxville, Vice-President; and **Dr. T. F. Haase, Jr.**, Knoxville, Secretary-Treasurer.

Dr. Curtis McGown, general surgeon of Clarksville, has been awarded the American Medical Association's Humanitarian Service Certificate for

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his participation in the AMA's Volunteer Physicians for Viet Nam Program. The award was presented by Dr. Harold Vann, President of the Montgomery County Medical Society, at the Society's monthly meeting, September 18.

Dr. Ralph M. Kniseley, associate chairman of the Oak Ridge Associated Universities Medical Division, chaired two sessions of the annual meeting of the American Society of Clinical Pathologists in Chicago.

March 24-30

American Society of Clinical Pathologists (Interim) Roosevelt Hotel, New Orleans

March 25-28

Southeastern Surgical Congress, Sheraton-Park Hotel, Washington, D. C.

March 25-29

American College of Allergists, Denver Hilton, Denver

March 29-31

American Society of Internal Medicine, Hotel Statler, Boston

ANNOUNCEMENTS

Announcement of Meetings, 1967-68

State

- Feb. 14-16, 1968 Mid-South Postgraduate Medical Assembly, Memphis
 April 18-20 Tennessee Medical Association, Read House, Chattanooga

National

- Dec. 2-7, 1967 American Academy of Dermatology, Palmer House, Chicago
 Dec. 4-6 Southern Surgical Association, The Homestead, Hot Springs, Va.
 Jan. 19-20, 1968 American Society for Surgery of the Hand, Palmer House, Chicago
 Jan. 20-25 American Academy of Orthopaedic Surgeons, Palmer House, Chicago
 Jan. 29-31 Society of Thoracic Surgeons, Roosevelt Hotel, New Orleans
 Feb. 3-7 American Academy of Allergy, Statler-Hilton, Boston
 Feb. 6-10 American College of Radiology, Drake, Chicago
 Feb. 8-10 Society of University Surgeons, Americana, New York
 Feb. 8-10 Southwestern Medical Association, Sheraton-El Paso Motor Inn, El Paso, Texas
 Feb. 19-21 American College of Surgeons Sectional Meeting, Statler Hilton Hotel, Dallas
 Feb. 22-24 Central Surgical Association, Sheraton-Cleveland, Cleveland
 Feb. 28-Mar. 3 American College of Cardiology, San Francisco Hilton Hotel, San Francisco
 March 1-3 American Association of Pathologists and Bacteriologists, Drake Hotel, Chicago
 March 11-13 American College of Surgeons (Sectional Meeting for Doctors and Nurses), Williamsburg Inn, Williamsburg, Va.
 March 18-20 American Academy of Pediatrics, Regency Hyatt, Atlanta

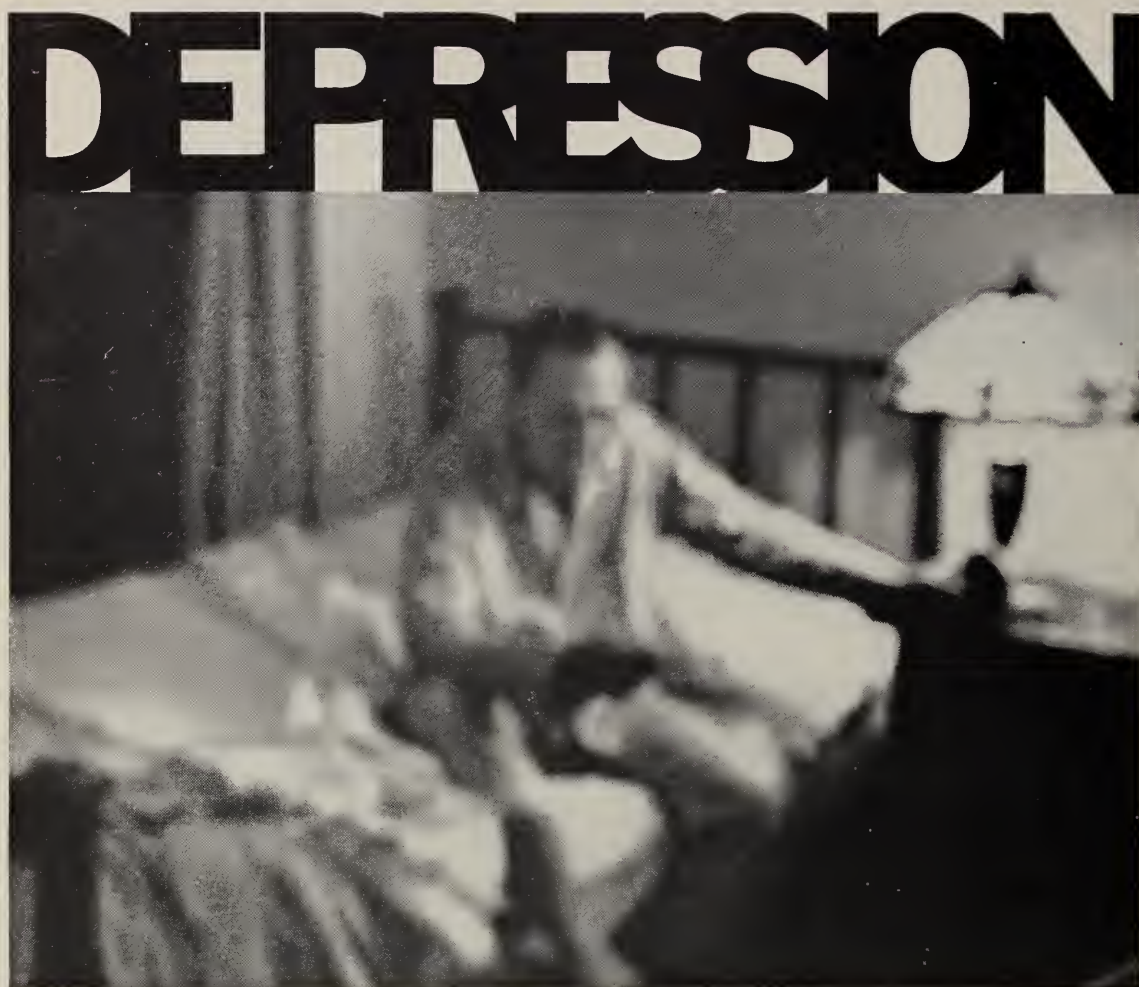
Distinguished Service Awards To Be Made By TMA

Each year there are physicians in the state who make significant contributions to the advancement of medical science, or to a specific program resulting in better health for citizens of his community, county and state. These physicians should be recognized and the Board of Trustees, in 1964, established a maximum of three Distinguished Service Awards to be made to these physician members after receiving nominations from the membership. The awards carry prestige and distinction and should be for a service performed in the immediate preceding year. Any member of the Tennessee Medical Association in good standing is eligible for nomination, and any member of TMA in good standing may nominate a recipient for this award which will be presented with appropriate ceremony during the annual meeting of the Association in April.

Criteria to be followed in submitting candidates for the awards may be obtained from the TMA headquarters office or the Secretary of your County Medical Society.

Directory of Cardiovascular Services Available

A directory of Cardiovascular Services for Tennessee, prepared by the Community Service Committee of the Tennessee Heart Association, is now available. The directory will assist medical and para-medical persons in locating where the different types of health care services are available. The Nursing Committee of the Heart Association has taken the responsibility for assisting with distribution of this publication. It may be obtained from your local heart association office or a member of your Chapter's Nursing Committee. The direc-



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cur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

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tory has been prepared as a service of the Tennessee Heart Association and its Chapters serving ninety-five Tennessee and three Georgia counties.

Continuing Education Courses In 1968

The University of Tennessee Medical Units announces continuing education courses to be held in 1968:

January 24-26—Advances in Urology
 March 7-9—Medical Aspects of Sports
 March 13-15—General Pediatrics
 March 18-27—Fundamentals of Otolaryngologic Allergy
 March 22-24—Surgery of the Hand
 March 28-29—Industrial Medicine
 April 3-5—Forensic Medicine
 April 22-23—Psychosomatic Cardio - Re-

spiratory Disorders, Diagnosis and Treatment

May 8-10—Fractures and Dislocations

May 20-24—Intensive Review of the Science of Anesthesiology

June 5-7—Chest Diseases—Diagnosis and Treatment

July 24-26—Intensive Care of the Surgical Patient

August 28-30—Common Skin Diseases—Diagnosis and Treatment

If you have a suggestion of a course that might be offered in the future or desire additional information concerning the above, write to: Department of Continuing Education, The University of Tennessee Medical Units, 62 South Dunlap Street, Memphis, Tennessee, 38103.

* * *

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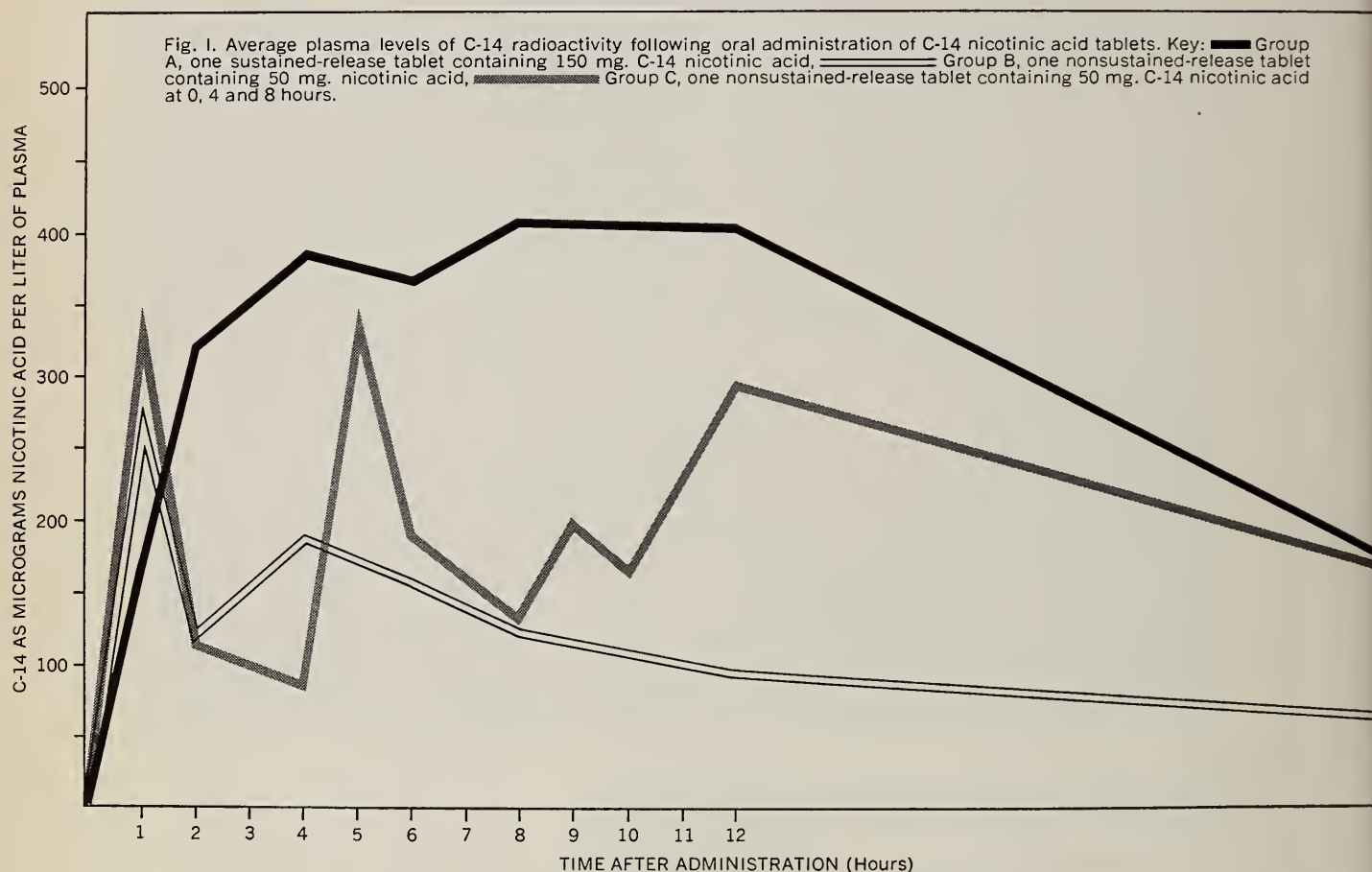
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

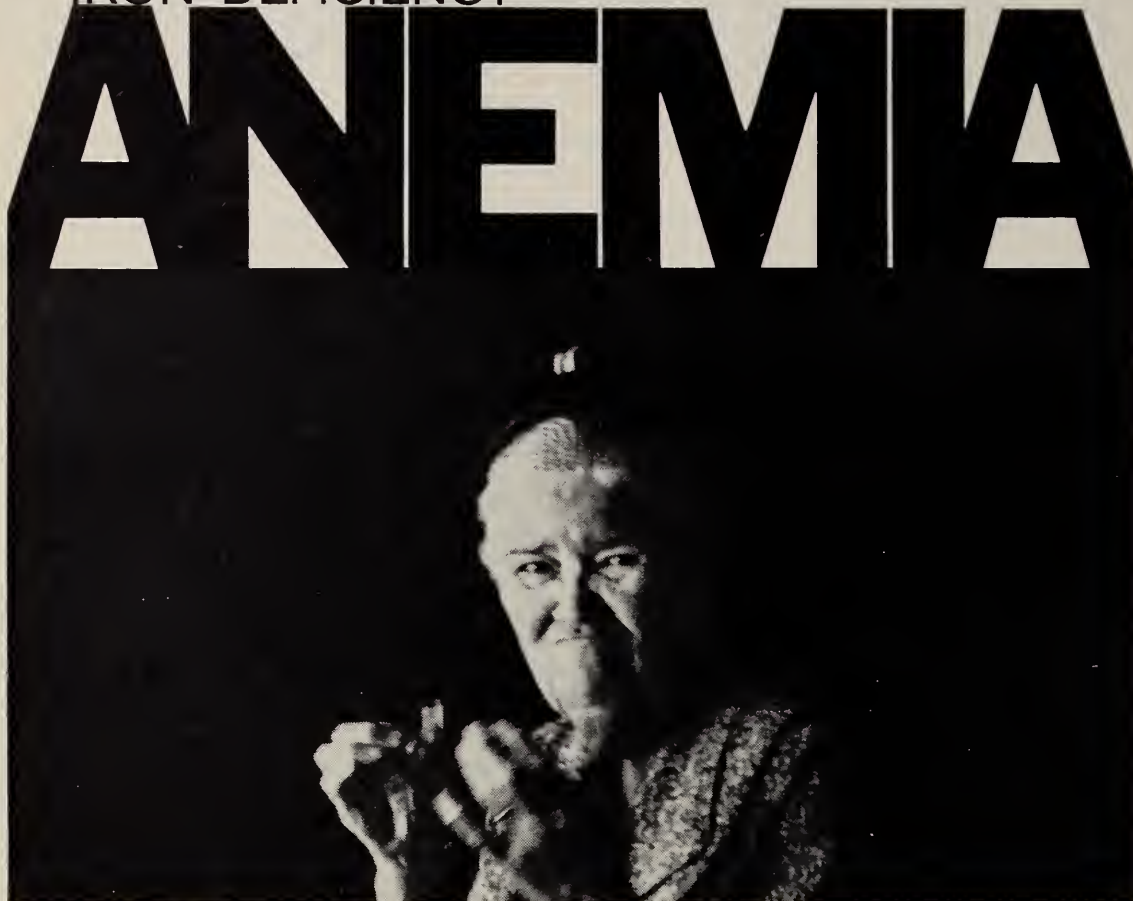
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Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as, —Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

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NO. 12

The use and abuse of these drugs offers a great problem to the medical profession, not only in intoxication but also in impaired function leading to highway accidents and the like. The use of several prescribed drugs of the same by the patient who "shops around" can be very confusing and complicate the clinical picture of intoxication. The author has done a service in publicizing this subject.

Poisoning From Psychopharmacologic Drugs*

ROBERT F. LASH, M.D., Knoxville, Tenn.

Borrowing from the jargon of today's teenager, poisoning from the psychopharmacologic drugs could be called "the most"—that is, a most common cause of poisoning. It may be most difficult to diagnose, in most cases the treatment is symptomatic, but the patients most frequently are mishandled though have most successful results when properly treated.

This presentation is designed to be of interest to those who treat the majority of poisonings, whether in the emergency rooms, poison control centers, general hospitals and in the office. Therefore this paper is not intended to contribute anything original nor go into great detail regarding individual drugs. Instead it is intended to present an outline of the toxicology and the general format of treatment applicable to poisoning from most of these drugs.

Such poisoning is common because of the tremendous variety of drugs involved—everything from tranquilizers and hypnotics through the psychic energizers and stimulants to the central nervous system. They are also prescribed in tremendous quantities by physicians, but often the source is the so-called *gray market*, or well meaning friends willing to share their medication. (See Table 1.)

Diagnosis

The difficulty in diagnosis arises from several factors. Drug intoxication may not even be considered in the differential diag-

Table I	
Trade Name	Generic Name
Artane	Trihexyphenidyl HCl
Aventyl	Nortriptyline HCl
Benadryl	Diphenhydramine HCl
Compazine	Prochlorperazine
Darvon	Propoxyphene HCl
Doriden	Glutethimide
Equanil	Meprobamate
Histalog	Betazole
Librium	Chlordiazepoxide HCl
Marplan	Isocarboxazid
Mellaril	Thioridazine
Miltown	Meprobamate
Nardil	Phenelzine sulfate
Niamid	Nialamide
Noludar	Methprylon
Norpramin	Desipramine HCl
Parnate	Tranlycypromine
Pertofrane	Desipramine HCl
Placidyl	Ethchlorvynol
Serax	Oxazepam
Sparine	Promazine HCl
Stelazine	Trifluoperazine
Thorazine	Chlorpromazine
Tofranil	Imipramine
Valium	Diazepam

nosis unless the circumstances or symptoms are obvious. Secondly, these intoxications have replaced syphilis as the "great mimic,"—masquerades include extrapyramidal signs, hypothermia, respiratory depression, personality disturbances, arrhythmias, skin rashes, shock, convulsions, and a multitude of other symptoms which may mimic a multitude of diseases.

Therefore, in any patient presenting with almost any symptom, one should at least consider the possibility of a drug overdose. The laboratory may be of considerable assistance in establishing the diagnosis and the drug in suspected poisonings. However,

*From the Knoxville Poison Control Center and the Department of General Practice, University of Tennessee Memorial Research Center and Hospital, Knoxville, Tennessee.

many of the toxicologic analyses are not available in the general hospitals and, if available, are time consuming. Several simple screening tests can be performed rapidly in the emergency room.

All of the phenothiazines, including the antihistamines of this group, can be detected by the FPN test. This is performed with a reagent of 5 parts of 5% ferric chloride, 45 parts of 20% perchloric acid and 50 parts of 50% nitric acid. Mixing 1 cc. of this reagent with 1 cc. of the patient's urine produces a color reaction ranging from a light orange pink, through pink to violet, to ink-like purple, depending upon the dose ingested. The duration of the reaction is also related to the amount of the drug taken, color lasting from ten seconds to several minutes. Occasionally a false positive test from urobilinogen will be seen; therefore this test is not always valid in liver disease, though otherwise it appears to be accurate. It should also be kept in mind that this test will detect phenothiazines taken several days previously,—thus a positive result needs interpretation as to whether it was a large dose several days ago or a small dose several hours ago.

A test recently reported by Prout appears to have merit in detecting the imipramines (Pertofrane, Tofranil and Narpramin). This test is performed by using a reagent made of 25% sulfuric acid in water, with a trace of potassium dichromate. To 4 cc. of this reagent, is added 2 cc. of urine. The presence of imipramine will produce a blue color, again with the intensity and duration of the reaction related to the amount of drug ingested.

Ingestions of atropine, scopolamine, (and jimson weed) can be confirmed by placing a drop of the patient's urine in the eye of whatever cat happens to be available and a prompt mydriasis will be noted. This test does not work as well in dogs or rabbits.

Treatment

Assuming we have established a diagnosis of ingestion of a psychopharmacologic drug, the question of treatment is in order. Those of you who have had experience in this area or have called a Poison Control Center realize that the treatment for practically all of these drugs is "symptomatic." All of us

seem to have a reflex when thinking of poison to associate an "antidote," but to my knowledge there is not one antidote for any of these drugs. By the same mechanism when we see a comatose victim of poison we want him awake, and we immediately start administering Megimide or caffeine-sodium benzoate, or Metrazol but these are not antidotes. It must be realized that administration of these drugs in an attempt to wake up the patient will not neutralize, remove or counteract the poison, but only adds one more toxic substance to the patient's already compromised system.

I would like to suggest the following outline of treatment which can be applied to all of the psychopharmacologic drugs and then briefly enumerate some of the individual characteristics of their treatment.

(1.) *Remove the ingested drug.* This is more efficiently accomplished by emesis than by gastric lavage. We have found syrup of ipecac in 1 tablespoon (not teaspoon) doses to be effective in producing emesis and in removing pieces of pills and whole capsules that obviously cannot be removed via a naso gastric tube. (We have also found this an excellent means of recovering accidentally swallowed contact lenses.) However, since this procedure is not possible in a comatose or semistuporous patient, gastric lavage must be used. This is advisable even several hours after ingestion because many of these drugs delay gastric emptying and significant quantities of the drug can be recovered. A specimen of this material should be saved. (At this time it is also a good idea to draw a specimen of blood in a 3200 P.S. tube for toxicologic analysis). To promote intestinal excretion, administer a cathartic. Usually sodium sulfate is recommended but we personally have never run into any difficulties using magnesium sulfate.

(2.) *Support the respiratory system.* An unobstructed airway must be obtained by clearing foreign material, dentures and patient's tongue from the oropharynx. If sufficient, an airway can then be used but often an endotracheal tube is necessary to maintain adequate respiratory exchange. We have found that endotracheal tubes may be left in place for at least three or four

days with minimal if any complications. By the end of this period the patient is usually capable of maintaining his own respiration. Respiration can be assisted either manually or by a mechanical respirator. Oxygen is not only not indicated but is contraindicated except perhaps, initially to make up any deficit of oxygen. Thereafter it is preferable to use air if the respiration is being mechanically assisted. This will maintain a CO_2 level in the blood to stimulate respiration and avoid the decreased coronary flow and cardiac output seen with 100% oxygen administration. It also aids in the prevention of atelectasis, since oxygen is completely absorbed by the lung, whereas nitrogen is not totally absorbed and leaves a volume of gas in the lungs to prevent collapse. In addition, there appears to be much less disturbance in the electrolyte and pH balance.

(3.) *Treatment of Hypotension and Shock.* Establishment and maintenance of an adequate respiratory exchange will often prevent or correct the hypotension and shock so frequently seen in these poisonings. However, when it does not, the shock will usually respond to treatment for hypovolemia, using Ringers lactate, dextran or plasma. We do not advise using epinephrine, ephedrine or the vasopressors except in very select circumstances because of the hazard of sensitization to these drugs produced by the ingested agent.

(4.) *Maintenance of Hydration, Electrolytes, pH and CO_2 Measurements and Balance.* Insertion of an indwelling catheter and maintenance of an accurate recording of intake and output on an hourly or two hour basis—not on an eight hour basis should be established. Daily electrolyte, pH and CO_2 and PO_2 , pCO_2 determinations are necessary in severe cases. However, the preceding treatment in many instances is effective in preventing the development of complications in this area.

(5.) I have intentionally avoided the mention of any central nervous system or respiratory stimulants, or co-called antagonists. In my opinion there is no reason for the use of these analeptic agents. Instead, with the patient's respiration, cardiovascular system, fluid and electrolyte balance

well maintained, all one needs to do now is change the patient's position frequently to avoid complications of decubitus and to monitor his temperature carefully. Many of these patients will be surprisingly hypothermic or hyperthermic from their drug ingestion, and will require appropriate measures to correct this. It has not been my practice to administer antibiotics routinely. I reserve their use until indicated.

(6.) Our other task is to attempt to aid the removal, excretion or metabolism of the offending drug by forced diuresis, peritoneal dialysis, artificial kidney dialysis, or exchange transfusion. These modalities will be dealt with under specific drugs discussed.

Specific Intoxications

The most common is from the *barbiturates*. Signs and symptoms of overdose are too well known to mention in detail. Stupor or coma with respiratory and cardiovascular depression are typical. As a rough clinical guide to the severity of intoxication, mortality has been reported as 29% in patients without pupillary reflexes and only 6% if pupillary reflexes are present. The shorter acting barbiturates produce a more rapid onset of action with deeper coma and more severe complications. The potential lethal dose is 3.0 Gm. of the short acting barbiturate and 5 Gm. of the long acting barbiturates. Death is usually due to cardiorespiratory failure. Serum levels of more than 11 mg.% of the long acting barbiturates or more than 3 mg.% of the short acting are associated with deep coma and serious prognosis. Urine levels are worthless.

Specific Treatment: Increased urinary output will hasten excretion of these drugs. Forced diuresis using mannitol in doses of 0.5 Gm. per kg. as a primer, and then a 5% solution alternating with D_5W can be used to produce an 8 to 12 liter 24 hour output. We have frequently used Diuril intravenously, in a slow dilute drip to titrate figuratively a diuresis in quantities of 10 to 14 liters per 24 hours.

Dialysis should be considered: (1.) When there has been an ingestion of more than 3 Gm. of short acting or 5 Gm. of a long acting drug; (2.) with blood levels of more

than 3.5 mg.% of a short acting or 8 mg.% of the long acting drugs; (3.) when there is obvious clinical deterioration of the patient, or; (4.) prolonged coma or impairment of normal excretion routes exist. Peritoneal dialysis is not as efficient as the artificial kidney in removing barbiturates, but it is rapid, simple, and readily available in contrast to the time and expense and hazards associated with artificial kidney dialysis. One should not wait until too late to use dialysis. A reservoir of drug in the intestine and body tissues, mobilized as the patient's metabolism increases, may be responsible for increased blood levels and recurrent coma after an initial improvement is noted following early treatment.

Phenothiazine intoxications. These include Thorazine, Stelazine, Mellaril, Compazine, Sparine, etc. Prominent symptoms include coma, but in distinction to the persistent flaccid coma seen with barbiturates, these individuals frequently display intermittent periods of restlessness, thrashing about, torticollis, tremor, spasms, extrapyramidal symptoms and tonic and clonic convulsions. Lowered blood pressure and hypothermia as with the barbiturates are extremely common. The less severe cases display bizarre symptoms of dysphonia, trismus, tongue protrusion, oclogyric crises and carpopedal spasm. Late, abrupt respiratory failure is usually seen in the fatal cases.

Specific Treatment: Benadryl, Artane or other antiparkinsonism drugs may be used in judicious doses to control the extrapyramidal symptoms. Short acting barbiturates, used cautiously, may be needed to control convulsions. Dialysis is of no help because of the protein binding of these drugs. Recently there has offered evidence that exchange transfusion may be life saving in children.

Librium, Valium and Serax. These are chemically and pharmacologically related compounds with sedative, antihistamine and anticholinergic actions. Symptoms commonly seen are depression, lethargy, coma, ataxia, slurred speech, and hypotension. Frequently paradoxical reactions of excitation, convulsions, and tremors are seen. Usually these patients are semicomatose

and rather easily roused. However, if other sedatives or hypnotics have been ingested with these drugs, additive effects and a much more severe clinical picture is seen. Blood levels are detectable in a few minutes and usually peak in about 2 hours. Extremely dangerous situations exist when these drugs are taken in combination with the MAO inhibitors, Elavil, Tofranil or barbiturates. Dialysis is not helpful and the only treatment is that previously outlined.

Meprobamate intoxication is not quite as frequent as it was several years ago but many instances are still seen. Clinically, these patients usually present with symptoms similar to those of barbiturate intoxication. Blood levels peak in 2 hours. Most of the drug is excreted within 24 hours and the patient will be awake. Light coma is usually seen with less than 10 mg.% blood levels and deep coma at more than 10 mg. percent.

There is no specific treatment since the drug is detoxified by the liver, though forced diuresis appears to remove about 10% of the drug. Convulsions and even death have been reported following withdrawal of Meprobamate. This also applies to Librium, Valium, Darvon and Serax and should be considered as a possibility when an improving patient begins to have convulsions. The administration of Dilantin, or the offending drug in gradually decreasing doses over a period of several days or weeks is necessary to prevent this complication.

The *bromides* of course are ancient history in the field of toxicology. Acute poisonings are rarely if ever seen because nausea and vomiting usually ensue from massive single doses. However, chronic intoxication from "over the counter" nerve remedies is not at all uncommon. Mental, emotional and neurologic disturbances are the most common symptoms. Within the past year we have seen at least 4 severe instances of bromide poisoning which were completely unsuspected when admitted to the hospital. One of these was a new born infant whose mother's serum bromide was 340 mg. Blood levels of more than 200 mg. are usually toxic. Specifics of treatment include the administration of sodium chloride, ammonium chloride, or mercurial diuretics.

Dialysis is extremely effective. The use of continuous gastric suction with Betazole stimulation of gastric secretion has been suggested.

Placidyl. Blood levels of more than 7.2 mg. % are usually associated with severe intoxication and death has been reported at a level of 13.8 mg. percent. The renal excretion of this drug is insufficient for diuresis to be of value but hemodialysis is effective and should be considered if a blood level of more than 4.5 mg. % is found 12 hours after ingestion.

Doriden. This drug is rapidly taken up by the fat in the body, therefore prolonged coma is expected. Other symptoms are similar to those seen in barbiturate intoxication. Moderate intoxication is seen with blood levels of 1 to 3 mg. % but there is rather marked variation in the clinical levels because of the unabsorbed drug in the intestine and that which is mobilized from the fat as the patient recovers.

In specific treatment it is important to avoid over-hydration. Castor oil might be preferable for catharsis. Peritoneal dialysis is relatively ineffective because of the drug's low solubility in water but lipid dialysis appears promising. Hemodialysis is recommended if blood levels are more than 3 mg. % or more than 10 Gm. have been ingested. It is important to watch for recurrence of coma as body fat gives up the drug.

Tofranil, Pertofrane, Norpramin, Aventyl, and Elavil. Intoxication from these is being seen much more frequently as a cause of drug poisoning. Hyperpyrexia, coma, tachycardia, athetoid movements, convulsions, arrhythmias and many other symptoms may be seen. These drugs in combination with Librium, MAO inhibitors and the barbiturates are particularly hazardous. Fatalities are frequently due to cardiac arrhythmias. Dialysis is not effective for any of these drugs since there is rapid absorption and plasma binding. Forced diuresis has been used in several cases and appears to be effective. For ingestion of Tofranil, Pertofrane and Norpramin, gastric irrigation and continual aspiration of stomach contents is suggested as possibly promoting more rapid elimination from the body because of the high rate of secretion in the stomach.

The MAO inhibitors such as Parnate, Nardil, Niamid and Marplan are not used frequently and we have seen very few examples of such intoxication. With these drugs severe hypertensive crisis are not uncommon although hypotension is also seen. Hyperpyrexia of 109° was seen in a fatal case reported to us. No specific treatment is available.

Amphetamines. The symptoms of such intoxication are well known,—excitation, restlessness, mania, tachycardia, increased blood pressure, and convulsions. These patients have an abnormal tolerance to barbiturates. It may be necessary to use hypothermic measures to control the fever associated with overdoses. Urine determinations confirm the presence of these drugs.

Summary

Successful treatment of intoxication by psychotropic drugs is based on the following:

- (1.) Make the diagnosis early—be suspicious.
- (2.) Remove the agent by emesis or lavage, and cathartics.
- (3.) Establish an airway and maintain adequate respiratory function. Use of an endotracheal tube and mechanical respirator for periods of three to four days or even longer, is usually preferable to a tracheostomy and its complications. Do not use oxygen except in specifically indicated cases.
- (4.) Prevent cardiovascular shock by the foregoing. When shock is present, the use of Ringers lactate, dextran or plasma to correct hypovolemia is usually effective and preferable to the use of epinephrine or vaso pressors.
- (5.) Monitor and maintain water balance, electrolytes, and blood pH by use of an indwelling catheter, appropriate chemical determinations and administration of intravenous fluids.
- (6.) Do not administer analeptics. Instead monitor the patient's temperature and correct it as needed, turn the patient frequently to prevent complications of stasis, administer antibiotics when indicated, and forget about trying to wake the patient up.
- (7.) If applicable, aid excretion of the drug by forced diuresis using mannitol, di-

uretics intravenously, or intravenous fluids. Consider the use of exchange transfusion in children. In severe cases use peritoneal dialysis or the artificial kidney for intoxication by Placidyl, Noludar, barbiturates, bromides and Doriden.

(8.) Be aware of following:

(a.) The possibility of recurrent or increased coma as the patient mobilizes unab-

sorbed drugs from the intestine or tissue stores.

(b.) Certain combinations of drugs present a much more threatening situation than these drugs taken alone.

(c.) Convulsions following withdrawal of Meproamate, Librium, Valium, and Serax are a grave threat to the patient's life and will usually respond to administration of graduated doses of the offending drug.

* * *

UNIFORM, ETHICAL M.D. TELEPHONE LISTING GUIDES ARE PUBLISHED BY JUDICIAL COUNCIL OF A.M.A.

Guides for physicians' listings in telephone directories have been issued by the Judicial Council of the American Medical Association. The uniform, ethical ground rules preserve the public's right to know the names, types of practice, office locations and hours, and telephone numbers of M.D.'s.

Copies of the guides have been distributed to state and local medical societies throughout the United States, according to Judicial Council spokesmen. A limited supply of the publication is available to AMA members on individual request, the announcement added.

Although the guides are specific, the council said that "the county (component) medical society, in the last analysis, must ascertain local community need and through a well thought out program serve those needs.

"It is incumbent on the county medical society to implement these guidelines for the local medical community," the council continued. "With an established program, the county medical society can meet with representatives of the telephone company and develop an acceptable program of public service," the council said.

In an eight-point series of guides, the Judicial Council makes the initial point of physicians' listings making use of the abbreviation "M.D." rather than "Dr." The council rules the latter out as being misleading.

Use of the abbreviation "phys." for "physician" is also taboo, the guides say, because it can also refer to an osteopath.

The second area in the guides concerns description of the type of practice. While such description is fully acceptable, only those specialties and subspecialties recognized by AMA and the Advisory Board for Medical Specialties may be employed. The council said that "Only those physicians who are board certified or who limit their practice exclusively to a specialty should list themselves in the designated field."

Specialty listings may not include more than two specialties per physician, the council added. Pointing out the undesirability of multiple specialty listings, the guides say that they are both a form of self-aggrandizement and a source of confusion to the public.

The size and face of type in classified (yellow pages) section should be uniform, the guides declare. In examples, no bold face type is shown, and most local medical societies are known to have banned it. Box and display advertisements for individual physicians or groups "are not in keeping with the dignity of the medical profession," the guides point out.

Telephone listings in the directory of a locality where a physician has no office, residence, or hospital affiliation are also prescribed, except for major metropolitan areas where growth has brought about geographic divisions.

Answering service numbers or "if no answer" insertions are permissible for the convenience of patients. Display ads by county medical societies showing addresses and special emergency services were described as "commendable."

AMA headquarters at Chicago said that copies of the guides have been furnished to the American Telephone and Telegraph Co. for further distribution to all telephone companies.

Unfortunately, *how true!* Your Editor, as a teacher of physical diagnosis, taught and practiced that the vaginal and rectal examinations should be a part of the routine examination in every married or widowed woman irrespective of the clinical picture. Furthermore, that such examination is mandatory in any unmarried female having symptoms possibly related to either the lower genito urinary tract or rectum. The author has reinforced this dictum beautifully.

The Vaginal Examination

A. W. DIDDLE, M.D.,* Knoxville, Tenn.

Physicians too often omit a vaginal examination in the clinical study of women or young girls. This awareness was accumulated personally through perusal of large numbers of medical records in several general hospitals at various times during the last decade. Many problems could have been solved at the time of the initial consultation. Some examples are given to illustrate the contention.

(1.) A physician attended a parturient at term. Since labor did not progress satisfactorily, Pitocin was given intravenously by drip. *A pelvic examination was not done.* A catastrophe eventuated. The uterus ruptured. Then it was ascertained by vaginal examination that the baby was in transverse lie. The infant was dead.

(2.) Evaluation of desultory labor may require a vaginal examination to determine the amount of progress, if any. For example, two physicians disagreed as to whether or not a 19 year old primigravida had been in the second stage of labor, two, or eight, or more hours, respectively. *They did not do a vaginal examination.* Subsequently, it was impossible for a consultant to ascertain when the first stage of labor was completed. Incidentally, the patient acquired a vesicovaginal fistula postpartum attributed to necrosis from prolonged pressure of the presenting part. Certainly one could say the conduct of labor was poor in this instance.

(3.) A middle-aged woman had a physical examination including visualization of the cervix. Three months later she developed a watery, vaginal discharge. During the next 9 months, three other physicians were consulted. *None did a pelvic examination.* More than a year after the first examination, a fourth examiner found clinical

carcinoma. A subsequent consultant should *always* check on the findings of the previous examiner.

(4.) An 18 year old student was referred for consultation because she failed to menstruate after receiving substitution endocrine therapy *empirically*. This girl had agenesis of the vagina and uterus. A correct diagnosis should be established before endocrine therapy is given to young women who have primary or secondary amenorrhea.

(5.) A 3 year old child *empirically* was given antibiotics to control a leukorrhea. The patient did not respond to the treatment. A few weeks later another examiner sounded the patient's vagina with a probe and found a foreign body. The leukorrhea disappeared after removal of the object. The cause of a chronic vaginal discharge in a young girl may require more than external inspection.

(6.) There is a situation where the cervix cannot be visualized or the internal genital organs palpated. In the presence or absence of abnormal symptoms or signs it may be presumed incorrectly that no disease exists. For instance, a 70 year old nulliparous woman consulted a physician because of a scant, colorless, vaginal discharge. Examination of the upper portion of the vaginal tract was unsatisfactory. *Cytologic studies were not done.* Nevertheless, the patient was released with the opinion that the discharge was due to senile changes, which were present. Later another physician found carcinoma of the vagina above a constriction of the birth canal. The moral is that, *if an examination is unsatisfactory, further studies should be done* under more favorable circumstances, oftentimes in an operating room with the patient anesthetized.

*From Department of Obstetrics and Gynecology, Memorial Research Center, University of Tennessee, Knoxville, Tennessee

Comment

Failure to include a vaginal examination as part of the physical study of female patients probably sprouts from either the examiner or the patient's mores concerning modesty, or the assumption that the procedure is academic rather than practical.

A vaginal examination combined with a rectal examination carefully done seldom does harm. It may exclude unwarranted treatment, preclude a complication, and at the same time help establish a correct diagnosis.

If a rectal examination does not enable one to establish a correct diagnosis, vaginal studies should be done even in the case of young girls. A proviso is granted. To offset psychic trauma it may be desirable to do this kind of study with the patient anesthetized.

We do not believe for a minute that there is too great a use of the laboratory for diagnostic purposes. On the contrary, physicians should not lose sight of the fact that most patients need to be examined adequately to clarify a clinical situation.

tack, the pain had persisted and was so intense that he sought medical attention. He was only able to obtain temporary relief by getting down in front of his automobile air-conditioner and allowing cold air to blow over the left eye and forehead.

The past history revealed that the patient had suffered from Meniere's disease of the left ear intermittently for the past 15 years. This was treated without improvement in 1963 by an endolymphatic shunt. At the time of the present examination, he was being treated with Dramamine 50 mg. 4 times daily and Vasodilan 10 mg. 4 times daily. He had aerotitis in 1951 while in the navy reserve and a spontaneous pneumothorax in 1953. The left eye had been injured approximately 15 years ago by a saw blade. This resulted in a fixed asymmetrical pupil. His corrected visual acuity was 20/25.

Examination revealed the patient to be a slightly overweight, intelligent man who appeared to be in intense pain.

The left eye was superficially congested with marked tearing. The cornea was clear with a deep anterior chamber which was optically empty. The left pupil was fixed and asymmetrical. The intraocular pressure was normal in both eyes. The fundus examination was unremarkable.

The impression at this time could only be "left eye pain," etiology undetermined. A decision was made to rule out the following related causes:

1. Gasserian ganglion tumor.
2. Expanding carotid aneurysm with pressure on the ophthalmic division of the fifth cranial nerve.
3. Cluster type of headache.
4. Intracranial vasodilation from drugs, sepsis, or emotional causes.
5. Temporal arteritis.
6. Neuralgia.
7. Subarachnoid hemorrhage.
8. Psychogenic pain.
9. Paranasal sinusitis.
10. Hypertensive headache.

In an attempt to rule out an expanding aneurysm, a left carotid arteriogram was done which proved to be negative. Skull series revealed a large frontal sinus with a 3 to 4 cm. mucocele which was not present upon a previous x-ray examination in 1966.

A left frontal craniotomy with complete removal of the mucocele was performed, and the patient has remained asymptomatic.

Comment

In retrospect, the patient's presenting complaint of pain, by the intensity, duration, and the circumstances of the occurrence of the pain, altogether presents a very

CASE REPORT

An Unusual Cause of Ocular Pain*

Henry T. Grizzard, M.D., and Roland H. Myers, M.D.†, Memphis, Tennessee

Case Report

This 39 year old white man presented himself at the emergency room with severe pain in the left eye. The pain was described as sharp and stabbing, and radiated from the left eye to the forehead, accompanied by tearing, blurring of vision, and the eye becoming very red.

The patient related the onset of his symptoms to the time of the descent of a commercial airliner on which he was a passenger. He related that on 4 previous occasions during the past 18 months, he had experienced pain in the left eye at the beginning of the descent of an airplane on which he was riding. The attacks usually lasted about 5 minutes and were characterized by local pain, tearing, and blurring of vision, with the eyes turning red. However, in this current at-

*Read before the meeting of the Tennessee Academy of Ophthalmology, Memphis, Tenn., April 14, 1967.

†From the Department of Ophthalmology, University of Tennessee College of Medicine, Memphis, Tenn. 38103.

informative symptom. Pain reaching its full intensity almost immediately is characteristic of tissue which has been ruptured; the classic being the pain in a dissecting aortic aneurysm¹, whereas in this patient it was *hemorrhage into the mucocoele*.

Its sharp, transitory nature is characteristic of disease of the nerve roots and ganglions, as opposed to the throbbing quality of pain which arises from arterial pulsation.

The fact that each attack was precipitated by the descent of a plane would quite readily make one think of changes in the barometric pressure acting as a trigger mechanism, thus possibly implicating a sinus lesion.

We think that the vasocongestion and epiphora represented an axon reflex phenomenon in which the peripheral end of the posterior root of the gasserion ganglion was stimulated. This resulting in antidromic impulses with vasodilation. Similar episodes of vasodilation with deep ciliary flush from an axon reflex are frequently seen in acute glaucoma, iritis and corneal foreign bodies.²

We thought this case warranted description, not only because of its unusual manifestations, but also because with increased commercial air travel, one should anticipate an increase in flight related problems. Furthermore, with the more complete separation of training in ophthalmology and otolaryngology, we need to be reminded of their common manifestations.

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CLINICOPATHOLOGIC CONFERENCE

Methodist Hospital

Prostatism, Uremia, & A Blowing Systolic Murmur

Present Illness: This 75 year old white man was admitted to Methodist Hospital with the chief complaints of inability to void, chills and fever, and vomiting.

Past History: The onset of symptoms began 3 days prior to admission and had been treated with penicillin with partial response of the fever. He had been in the Methodist Hospital until 10 days before this admission for treatment of low-back pain and chronic arthritis. He had a long history of several weeks of severe urgency, dysuria, frequency, and nocturia 8 to 10 times. There was no history of previous heart disease, hypertension, allergies, or surgery.

Physical Examination: T. was 99° F., P. 90 per minute, and B.P. 146/88 mm. The patient was dehydrated as shown by dry mucous membranes. Examination of the chest revealed an increase in AP diameter with coarse rhonchi bilaterally and depressed breath sounds at the left base. Auscultation of the heart revealed a coarse blowing systolic mitral murmur heard at the apex and over the precordium. Palpation of the abdomen revealed the liver edge 2-fingerbreadths below the right costal margin. The liver was slightly tender to palpation. The bladder was distended half way to the umbilicus. Rectal examination revealed a grade I firm movable prostate with slight fixation of the left base. The lower extremities showed no evidence of edema.

Laboratory Examinations: On admission the WBC. count was 12,600 with 93% P.M.N., the Hgb. 10.8 Gm. and the Hct 34 vol.%. Urinalysis on admission revealed a specific gravity of 1.011, pH 6.0 3+ albumin, RBC's too numerous to count, negative glucose and ketone bodies, occasional finely granular and rare coarsely granular casts. Urine culture was negative at 48 hours. Blood chemistry studies showed a BUN of .99 mg. on admission, decreasing to 88 mg. 2 days after admission and serum creatinine of 4.4 mg. per 100 ml.; CO₂ was 30, chloride 96, potassium 3.9, and sodium 133 mEq/L. Culture of sputum revealed *Klebsiella pneumoniae*.

X-Ray Studies: Chest x-ray revealed a fluid density in the pleural space at the right lung base laterally. On the left there was probably some fluid present also, but the left lower lobe appeared to be involved by a major consolidation. The upper lung fields showed no acute infiltrations.

Hospital Course: The patient was placed on

antipyretics, penicillin, glucose and Ringer's lactate intravenously and IPPB with a mucolytic agent and bronchodilator. Two days after admission he was feeling better and sitting up. He remained febrile, however, with the temperature reaching 101° F. on the 5th hospital day. He died quietly at 11:45 P.M. on the 5th hospital day with no terminal episode.

DR. T. KYLE CRESON: The patient was a 75 year old white man who was admitted with chief complaints of inability to void, chills, fever and vomiting. The onset of these symptoms began 3 days previously and had been treated with penicillin with partial response of the fever. This suggested probable acute prostatitis, either that or cystitis, but we still have this problem of voiding and most people with just simple cystitis can void. I would like to mention one thing and that is the more patients I see the more convinced I am that these older men have a real problem with prostatitis. I think we should take the time to massage such glands particularly if there is a condition of fever of unknown etiology and some dysuria. One should massage the gland and examine the fluid microscopically and treat with proper antibiotics, repeated massage and Sitz baths. The patient had been in the hospital until 10 days prior to this admission for treatment of lower back pain and chronic arthritis. Now, to me anytime an old man comes in the hospital and has to be treated for low back pain, I think of carcinoma of the prostate with metastases or multiple myeloma. A neurosurgeon would think of a ruptured disc as well. No mention of any neurologic changes is given so I assume there was no disc problem. He had a history of 7 weeks of severe urgency, dysuria, frequency, and nocturia. This could be explained by prostatitis, also I think cystitis could be considered here too. The urinalysis I thought pretty well ruled out cystitis. Occasionally we see hemorrhagic cystitis, but in my experience this is so much more common in females that I am a little surprised when I see it in a male. There was no history of previous heart disease, hypertension, allergies or surgery which may be important later on because we do have a rather loud heart murmur. If the murmur developed recently, the association of the murmur with infection may have a correlation. The patient had a temperature

*From the Department of Pathology, and Internal Medicine, Methodist Hospital, Memphis, Tenn.

of 99.4 with a pulse of 90 and a blood pressure of 136/88. Again, if he were having much infection it is possible the blood pressure was higher at one time and that can explain a mitral murmur later. He was dehydrated as evidenced by dry mucous membrane. Examination of chest revealed increased AP diameter with coarse ronchi bilaterally which I thought was compatible with emphysema. The CO_2 was 30 which is a little bit elevated and could represent mild respiratory acidosis. It might even be more severe if he did not have his probable metabolic acidosis from azotemia. There were depressed breath sounds at the left base. Friedlander's bacillus was cultured from the sputum. Friedlander's pneumonia is commonly associated with very few rales and primarily just with the depressed breath sounds. There was a murmur at the apex of the precordium. In this area it was first thought to be an arteriosclerotic heart disease with calcific aortic stenosis. I think an old hypertensive cardiovascular disease whose blood pressure has now come down because of some failure can be considered. Also, subacute bacterial endocarditis because of this loud murmur and pneumonia should be considered. Palpation of the abdomen revealed the liver down 2 cm. below the costal margin. It was tender and this is suggestive to me of congestive heart failure. The bladder was distended half way to the umbilicus and I think again this is due to prostatism. Rectal examination revealed a firm movable prostate with slight fixation to left base. The prostate projected up into the rectal area and the slight fixation to the left base is suggestive of carcinoma of the prostate. The lower extremities showed no evidence of edema. The admission laboratory studies showed a mild leukocytosis with a considerable shift to the left, 93% segs., which to me reflects possibly poor prognosis; any time you have a man with severe infection, a marked shift to the left and a relatively low white count, you may suspect that he may die. His hemoglobin and hematocrit showed a fairly normochromic normocytic anemia, mild to moderate, which again could go along with chronic azotemia or infection. Urinalysis on admission revealed what may be a fixed

specific gravity which could be suggestive of chronic renal disease, with a pH of 6, 3 plus albumin, negative for glucose and ketone bodies, and with occasional casts. Now, when I read this I thought maybe we have our first possible clue into something isoteric. Maybe we have a nephrotic syndrome because we have a lot of albumin and very little sediment. There were TNTC red cells in the urine which I think again would go along very well with carcinoma of the prostate.

I would like to discuss briefly the nephrotic syndrome. The causes of the nephrotic syndrome include membranous glomerulonephritis, focal embolic glomerulonephritis, amyloidosis, intercapillary glomerulosclerosis, syphilis, drugs, renal vein thrombosis, collagen diseases, and allergic phenomena such as bee-stings or therapy which occasionally trigger the nephrotic syndrome. In this case in favor of the nephrotic syndrome is a 3+ albumin with very little in the sediment. I think that any time there is a large amount of albumin with little in the sediment you have to consider the nephrotic syndrome. Diagnostic criteria are either 6 grams protein per 24 hours or marked albuminuria, hypoalbuminemia, and, although less and less, I think we still like to see hypercholesterolemia. The Maltese crosses, the lipid fat bodies on urinalysis are helpful, too. Amyloidosis, I see no other evidence of that. There is no large tongue or other manifestations. Subacute endocarditis I mentioned as an outside possibility, because of the loud murmur and the history of no previous heart disease. Now I think this is important, since we know that most often SBE occurs on already damaged valves, so we would have to say this man had rheumatic fever, but if he had Friedlander's bacterial endocarditis, it would probably be an acute bacterial endocarditis. The acute endocarditides do not always need to have a damaged valve to produce bacterial endocarditis, in fact, they usually do not. In heroin addicts, for instance, one very grave and common complication is bacterial endocarditis. It is almost always caused by *Staphylococcus aureus* and occurs on previously healthy valves. The urine culture

was negative which does not help me a lot. The patient came in with a high fever, and I think it is interesting that his creatinine was 4.4 mg. per 100 ml. I think very often one wonders whether a man who comes in dehydrated really has renal azotemia if we have a high BUN. or of it is prerenal. I still think more creatinine determinations should be done to evaluate renal status. If the creatinine is elevated, you have true renal azotemia; if it is depressed out of proportion to the elevated BUN., you have prerenal azotemia. This patient seems to have had a little of both. This creatinine is about twice normal, the BUN. is about four or five times normal, so I would suggest he had some true renal failure plus a goodly amount of prerenal azotemia as well. His BUN. did fall to 88 a couple of days later, again suggestive of this. The chloride, potassium, sodium were about normal. On culture the sputum revealed *Klebsiella pneumoniae*. Generally in Friedlander's pneumonia these patients are alcoholics, in fact, about the only ones I can remember in Chicago were alcoholics, for Friedlander's organism tends not to occur in a person with normal immunologic responses or someone who does not vomit in the gutter and aspirate gastric contents. You almost have to have one or the other. Now, why should a 75 year old man with normal immunologic responses and a nonalcoholic have Friedlander's pneumonia. I can think of one of three possibilities: (1) if he was an alcoholic and we just did not know it; (2) if he had a possible obstruction from bronchial carcinoma; or (3) if he did have some depression of his immunologic system such as multiple myeloma.

DR. HOLLIS HALFORD:* The first three films were made about 5 weeks before the patient's terminal event, and the last two were made about four or five days before he died. In the films made 5 weeks before death you see really no unusual findings on any of these three films. The heart is of normal size, tortuous aorta, lung fields look quite clear, there is old pleural thickening at the right base, and there is evidence of emphysema. The abdominal film shows prominent degenerative arthritis. The bones are demineralized, but we do not

see any blastic or lytic lesions. I cannot really identify the spleen or the visceral organs clearly. There is no obvious liver, spleen or renal enlargement. These films made four or five days before death reveal some cardiac enlargement and fluid has accumulated which extends up into the right chest. Frankly, it looks like fluid, but there is a contour suggesting the pattern we do see in Friedlander's pneumonia being boggy and looking like fluid.

DR. CRESO: The heart hasn't enlarged particularly, has it?

DR. HALFORD: It has enlarged some.

DR. CRESO: I agree, I think the x-ray changes are compatible with Friedlander's. Clinically I think that usually these people are coughing up mucoid sputum. Sometimes you almost have to manually help them get this sputum out and they have a tendency toward early and progressive cyanosis. Clinically, Friedlander's pneumonia is not too good a probability. Now what about these sputum cultures,—about 25% of normal people have been said (Cecil and Loeb Textbook) to show Friedlander's organisms on culture. I do not know if finding Friedlander's bacillus in the sputum automatically means that this is probably a Friedlander's pneumonia; however, I will stick with what seems to be obvious. The patient was placed on antipyretics, penicillin, and intravenous glucose. Two days later he was feeling better although he remained febrile and then quietly died. I think using penicillin, which will not hit *Klebsiella pneumoniae* a gram negative organism, would again be compatible with this course. I think we mentioned the four major organs involved, the heart, kidneys, prostate and lungs, and possibly bone.

This patient could have a carcinoma of the prostate with bone metastasis and secondary hydronephrosis, chronic pyelonephritis and renal failure. In addition, he probably has calcific aortic stenosis to explain the murmur. The possibility of Friedlander's pneumonia and bacterial endocarditis must be considered. Multiple myeloma with a diminished immunologic response should also be considered to explain the pneumonia.

DR. PHILLIPS: Thank you Dr. Creson

*Department of Radiology, Methodist Hospital.

for an excellent discussion on a seemingly undiagnosable CPC. This case represents one of the 25% you mentioned earlier, so far as Friedlander's pneumonia is concerned, because in our examination at time of autopsy both grossly and microscopically, there is no pneumonia. Dr. Halford's assumption that the chest fluid is all fluid is correct. There were about 1,000 cc. of straw colored fluid in each chest cavity and approximately 100 cc. within the pericardial sac.

The reason for the haziness of the abdominal organs was the presence of 1,000 cc. of ascitic fluid.

The mitral valve measured approximately 10 cm. in open circumference and shows the somewhat friable, raised, cauliflower-looking vegetation present on the free edge of the septal leaflet. (Fig. 1)

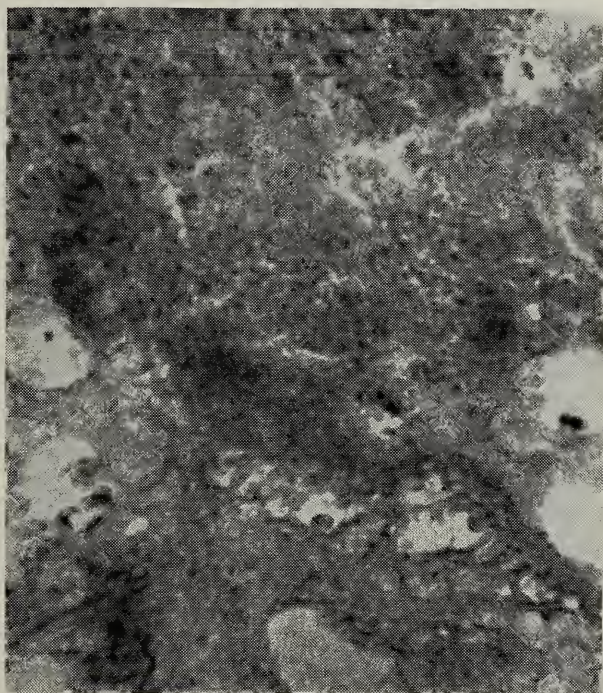


FIG. 1

Also present was a large fenestration about 2 mm. from the free edge of the valve. This fenestration measures 6 mm. in greatest diameter. Apparently this was accounted to a large part for his mitral regurgitation insufficiency, and murmur.

A photomicrograph through the valve leaflet shows it to be composed largely of organizing fibrin and thrombus with enmeshed basophilic staining masses of bacteria. A gram stain of these masses reveals

that they are gram positive cocci; the type that we would suspect to see with *Staph. aureus*.

Now, as for the cause of death in this particular individual, it is somewhat unusual. This gentleman died as the protocol said, very suddenly without a terminal episode, the reason being massive subarachnoid and intraventricular hemorrhage. Examination of the basilar artery shows fusiform dilatation.

Blood had dissected into the surface of the brain and particularly, into the fourth ventricle to fill the lateral ventricles and third ventricle. Subarachnoid hemorrhage is quite massive.

(Fig. 2) A photomicrograph of the basilar

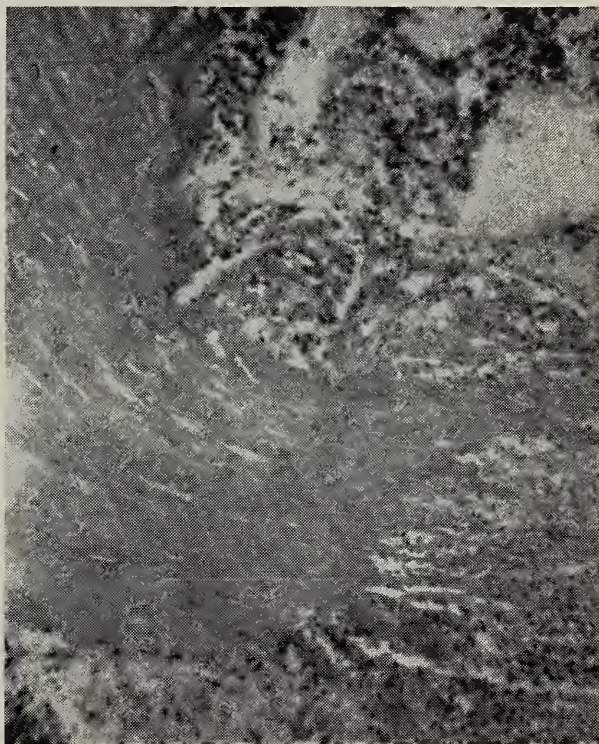


FIG. 2

artery is an example of a mycotic aneurysm involving this structure. Apparently a septic embolus from the heart valve had gone into this area and lodged, and now we see an out-pouching of this vessel or aneurysm formation. The internal elastic membrane completely loses its integrity and there is a diffuse infiltration of the vessel wall by pus cells. The entire vessel wall at one point is destroyed and there is disruption with blood going out into the subarachnoid space and substance of the brain.

The kidney reveals small petechial hem-

orrhages and the so called "flea bitten" appearance. There are a few such things that give this particular condition. Included among those are acute and subacute glomerulonephritis, thrombotic thrombocytopenic purpura, focal embolic glomerulonephritis, which this case represents, and a few others.

Shown to better advantage at higher magnification of the cortex of the kidney is

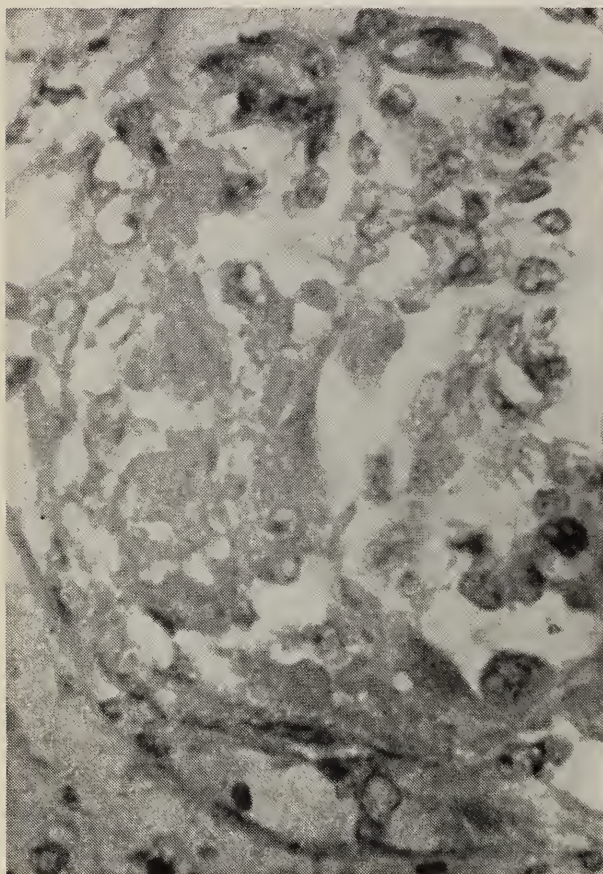


FIG. 3

a small elevated flea bite with petechial hemorrhage present on the surface proper. (Fig. 3) Photomicrographs of the kidney show an involved glomerulus and what appears to be fibrinoid necrosis of a portion of the capillary tufts. There is also some diffuse interstitial nephritis present at this point with a few white cells and chronic inflammatory cells present in the interstitium. About one glomerulus there is a small amount of proteinaceous material within Bowman's capsule. An occasional white cell can be seen within the involved glomeruli. An occasional glomerulus shows some proliferation of the endothelial cells lining Bowman's membrane. This to some extent mimics what we see in subacute glomerulonephritis with the formation of epithelial clefts. The endothelial cells within the capillary ducts appear swollen and edematous.

Within the spleen there were areas of hemorrhagic infarction. The prostate, which was mentioned earlier, was hyperplastic. There was microscopically no evidence of an acute prostatitis.

FINAL PATHOLOGIC DIAGNOSIS: Bacterial endocarditis with perforation of the septal leaflet of mitral valve, focal embolic glomerulonephritis, mycotic aneurysm of basilar artery with massive subarachnoid and intracerebral hemorrhage and splenic infarction.

DISCUSSION: This case shows quite vividly the pathologic changes seen in bacterial endocarditis and the complications which can ensue.

From the
Executive
Director
E. Ballentine

T M A MEDICAL JOURNAL DIGEST

News of Interest to Doctors in Tennessee

Time for Election Of Officers and Delegates

● Secretaries of all county medical societies are urged to follow the provisions in the TMA By-Laws, requiring county medical societies to elect their officers and TMA Delegates and report the names of those elected to the Tennessee Medical Association by January 1st (1968). Secretaries of all county societies have been forwarded a questionnaire, requesting them to submit the names of newly elected officers and delegates from their county society. It is urged that all societies conduct their elections early, before the end of December. Receipt of the names of the delegates is needed in order that a Nominating Committee can be named by the Board of Trustees and the names of the members on the Nominating Committee be made known to all county medical societies.

TMA Distinguished Service Awards— Nominations to be Submitted

● The Board of Trustees has established a maximum of three "Distinguished Service Awards" to be made to physician members each year following the receipt of such nominations from county societies, or from any member of TMA. These awards are presented at the annual meeting. The following criteria should be followed in submitting candidates' names: (1.) Any member of TMA in good standing is eligible for nomination, and any member in good standing may nominate a recipient for this award. (2.) Nominations for the award will be evaluated by the Board of Trustees and such nominations with factual supporting data should be filed with the Executive Director of TMA NOT LATER THAN JANUARY 1 preceding the annual meeting. The data should provide: (a) Biographical information on the nominee, including a recent photograph. (b) Medical education and training of nominee. (c) Professional history, including private practice, specialty training, contributions to medical literature, teaching affiliations, staff connections, etc. (d) Detailed description of a specific or general contribution or accomplishment of the nominee to the advancement of medical science or any of the phases upon which the nomination is to be based. (e) Substantiating evidence of merit including printed materials, publications, articles, and other citations (3.) All nominees for the distinguished service awards will be evaluated with not more than three being made in any one year. (4.) The Board of Trustees will present the awards with appropriate ceremony during the annual meeting in April, 1968.

Dates for 1968 Annual Meeting

● April 18-20, 1968, are the dates for the 133rd annual meeting of the Tennessee Medical Association, to be held in Chattanooga with headquarters at the Read House Hotel. Scientific and business sessions will also be conducted in the Patten Hotel and the Holiday Inn-Downtown.

Code of Cooperation Between Physicians and Pharmacists

● After considerable study and planning, the TMA Interprofessional Liaison Committee, in cooperation with the Tennessee Pharmaceutical Association, has adopted an interprofessional code concerning relationships of physicians and pharmacists. The general format of the code focuses attention

to the interdependence of the two professions, yet clearly recognizing the distinction between the two. The Code is intended as a guide to physicians and pharmacists in their service to the communities in which they reside.

Prior to adoption of the code, the two committees considered such subjects as dispensing, prescribing, labeling, refills, ethics, etc. The purpose in adopting a joint code of cooperation is the fact that in the recognition that the free practice of the health professions has been the key-stone upon which has been built the finest system of health care in the world. The code reflects the impact of the Hart Bill, S-2568, as it relates to physician ownership of pharmacies, drug houses, and to drug dispensing by physicians. The adoption of the code was a desirable end to cement the unity that can best be accomplished with close-cooperation between medicine and pharmacy. A copy of the code will be mailed to all TMA members.

Billings for Unsolicited Listings

- Billings for unsolicited listings in commercial directories are reported being received by physicians in Tennessee. Pre-publication billing is sent to physicians and lists alleged "amount due". Some physicians are throwing these in their wastebasket, or marking the envelopes "delivery refused", resealing the envelopes and returning them to the post office. AMA's Judicial Council and the House of Delegates long have held as unethical, listings of physicians names in commercial directories and that such could be construed as solicitation. These "amount due" billings have been reported to better business bureaus and the post office.

TMA Board Holds Special Meeting

- The Board of Trustees of TMA convened in special session in Nashville on October 29. Purpose of the meeting was to discuss payments to physicians for services rendered under state funded health care programs; efforts of osteopaths to obtain privileges on hospital staffs; the regional medical programs; and statewide comprehensive health planning.

Dr. R. H. Hutcheson, State Health Commissioner, discussed in detail with the Board, the comprehensive health planning council of the state and the manner in which it is proposed to function. A statewide meeting on December 8th was held in Nashville to explain to persons recommended to the Governor or who had expressed an interest in serving on the health planning council.

The principal business of the Board in the special meeting dealt with a report from the Chairman of the Governmental Medical Services Committee concerning two meetings with state officials and the Governor relative to payment for physicians' services under the various state funded health care programs. It was emphasized that TMA desired at the earliest possible time to be able to inform its members that the state should agree to accept the payment of usual and customary charges for physicians' services. However, at present, available funds do not exist and the state has increased its payment for Welfare examinations for the present biennium and until such time that the legislature can take up the matter of providing adequate funds for these programs. The Governor is committed to the concept of payment to physicians on the usual and customary basis.

At the conclusion of this wide-ranging discussion, the Board adopted a motion, directing the Health Insurance Committee of TMA to study other methods of financing of health care under Title XIX and to determine whether other insurance alternatives are possible.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Public Service Committee Meets

● The TMA Communications and Public Service committee met November 5th to outline a program of public service activities for the association during the coming year.

A project which will entail the placing of the AMA publication "Today's Health Guide" in each of the state's junior high schools will be undertaken. The 640-page manual of health information is currently being donated to every high school library by TMA in cooperation with local medical societies. The favorable response to this endeavor prompted the junior high project.

The committee also urges each physician to obtain a copy of the book for placement in waiting rooms and to encourage patients to secure a copy for home reference.

The TMA sponsored television series "Spotlight on Medicine" which was successfully aired over stations in Memphis, Jackson, Nashville, Chattanooga, Knoxville and Johnson City last year was reviewed by the committee and a decision to offer the series again in 1968 was made. The film-panel type show affords county medical societies the opportunity for local physicians to discuss and explain various health problems and diseases of interest and concern to the public. Over 200 TMA members appeared on the initial showing of "Spotlight on Medicine".

More effort will be made to encourage county medical societies to participate in observance of Community Health Week next year. The annual affair affords local medical societies an excellent opportunity to improve their public service image through use of the Community Health Week kit of promotional materials furnished by the AMA at no cost to participating societies.

The use of outdoor advertising to bring health information messages to the public is being considered by the committee and may be a major project in the near future.

Dr. Oscar M. McCallum of Henderson is chairman of the TMA Communications and Public Service committee.

AMA Health Education Materials

● One of the primary objectives of the American Medical Association as stated in its Constitution, is "to promote . . . the betterment of public health."

The distribution of AMA health education pamphlets and posters is one of several ways to achieve this goal. Many physicians use pamphlets to supplement their counsel to patients and many county medical societies furnish pamphlets to school teachers and athletic coaches to use as instructional materials.

A new catalog of AMA Health Education materials is now available from TMA headquarters. Order blanks for more than 100 pamphlets which are accurate, authoritative and written in an easy-to-understand style are included in the catalog.

Why not perk up your waiting room with informative pamphlets relative to your type practice? Write for the catalog today.

Health Careers Film Being Developed

● As a further means of fulfilling its role of encouraging young men and women to enter medicine or careers allied to medicine, the American Medical Association is developing a new film, "Horizons Unlimited".

Designed to tie in with the Association's paperback book of the same name, the film, developed in a hospital setting, will depict approximately 12 rewarding careers in the health field and call attention to the wide variety of others.

"Horizons Unlimited" will be produced in color and will run approximately 28 minutes. It will become the only recently produced film covering a broad variety of health career opportunities and is intended to replace the time-worn film, "Helping Hands for Julie", developed by the AMA and the American Hospital Association through a grant from E. R. Squibb and Company in 1958. The new film is being developed exclusively by the AMA and announcement of its availability will be forthcoming.

Regional Medical Program Progresses

● The Mid-South Regional Medical Program, being developed by Vanderbilt University in cooperation with Meharry Medical College, received a "site visit team" September 25-26 to review operational grant requests made in June.

The purpose of the visit was to ascertain if the concept of the law establishing regional medical programs was being fulfilled and if the arrangements and relationships of the project requests were warranted and appropriate.

Action on the Mid-South program's 34 grant requests is expected to come from the National Advisory Council sometime in December.

Legislators Study Title XIX Legislation

● The Public and Mental Health Committee of the Tennessee General Assembly's House of Representatives has conducted two public hearings on Title XIX and is studying the feasibility of drafting legislation for possible introduction during the 1968 legislative session.

The committee received copies of a recent study conducted by an out-of-state consulting firm which contained cost estimates for a Title XIX program in Tennessee. A thorough explanation of the law's requirements for participation and penalties for non-participation was also received.

State participation for those persons now receiving assistance under welfare programs must include five basic medical services -- inpatient hospitalization, outpatient hospital services, laboratory and x-ray services, nursing home care and physician's services. A sixth service, drugs, would also be required in Tennessee due to the fact that drugs are now being provided welfare recipients and the service cannot be curtailed.

Cost estimates for a minimal program in Tennessee was \$45.4 million of which \$34.6 million would be the federal government's share. These estimates were based on 1967 costs, however.

Failure by a state to begin a program by January 1, 1970 will result in the state's loss of federal matching funds now being received for welfare programs with medical benefits. The date, thirty-eight states have initiated a Title XIX program with the remaining twelve in various stages of considering a program.

Governor Buford Ellington recently signed an executive order designating the Tennessee Department of Public Health as the state agency to administer Title XIX. The Tennessee Medical Association recommended this action.

President's Page



DR. KRESSENBERG

The Physician and The Law

For many years physicians have practiced under the umbrella of the law, to the mutual benefit of the profession and mankind. Historically, the restrictions placed upon physicians by the law have been few and relatively unobjectionable, and quite often have been passed with the blessing, and sometimes at the requests, of organized medicine.

During the present decade a lot of legislation has been passed dealing with medicine in one way or another, by and large over the objections of organized medicine, and most individual practitioners.

The majority of physicians have made an honest attempt to make these laws work for everyone's benefit. A small minority, however, feel that by obstructionist tactics they can force those responsible to change or repeal the laws. This attitude puts them in the same category with those who seek to postpone integration or to stop the military draft. By these actions we arouse the public against us and make our enemies more determined than ever, instead of winning friends to help us in our fight to preserve the form and substance of medical practice as we have known it.

We must certainly make every effort to change or repeal those laws which we feel detrimental to the public and to our profession. This requires that each of us do everything possible to win friends for medicine who share our philosophy of individual responsibility and initiative, and who oppose the trend toward socialization which seems to be gaining momentum at the present.

There is really only one way for us to insure that good laws are passed, and bad ones defeated or repealed — and that way is at the ballot box. We must elect those who share our philosophy and defeat those who oppose it. It is that simple.

While we are at the business of removing those in government who oppose our philosophy we must do our utmost to observe the law already on the books, and to do our job of caring for the people of this nation in the best way that we know. Only in this way will we earn the respect of those who are seeking to influence, and the friendship of those whose help we need to accomplish our goals.

Finally, we need continually to look critically at ourselves and our methods of practice. Unless we are willing and able to regulate our own activities it is inevitable that those in positions of authority in government will regulate us according to their own wishes. This would indeed be a calamity for our profession and for the people of this country.

Sincerely,

K. M. Kressenberg, M.D.

President

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Address papers, discussions and scientific matter to R. H.
Kampmeier, M.D., Editor, B-1310, Vanderbilt University
Hospital, Nashville, Tennessee 37203
Address organizational matters to Jack E. Ballentine,
Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Assistant Editor
2104 West End Ave., Nashville, Tenn. 37203

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DECEMBER, 1967

EDITORIAL

USUAL AND CUSTOMARY FEES

The payment of physician's services by a third party is becoming a way of life, whether the third party be an insurance carrier of either the profit or nonprofit type, or the government under any one of its agencies. The professional man has considered that his freedom must be maintained by his right to dispose of his services for some sort of fee. This seems to be essential to the maintenance of patient-doctor relationships, social planners to the contrary who favor salaried remuneration. Fee for service provides for quality control which salary may not.

One of the most readable discussions of this topic comes from a physician, Dr. Robert Westlake*, a paper presented at a meeting of the American Association of Medical Society Executives. This is a paper which should be "must" reading not only for executives of medical societies but for those members of societies who sit on committees which consider third party contracts, fees, and health insurance.

Dr. Westlake's contribution emphasizes the need for clearcut definitions as guidelines in applying the principles of usual and customary fees. He accredits the California Medical Association with developing a rational definition—"in brief, it means *usual* for that physician, *customary* for that service by physicians of that general type in that area, and *reasonable* for that specific service in that area for that physician." But, the author points out, this useful definition still requires sophisticated professional judgment by the doctor as he sets his fees and by those who judge the fairness of a fee. A doctor's *usual* fee or *mode* of his fees can be developed by a study of examples of his billing, and by a similar study of all doctors in the community, *customary* fees can be compiled for a given service. The *reasonableness* is more difficult of analysis, and may involve intangibles which surround the care in a given case. The interpretation of the fee in such a case may involve judgment by the reviewer.

*Westlake, Robert E.: Third Party Payments and the Financing of Usual and Customary Fees, New York Medicine, 13:431, 1967.

TO ALL PHYSICIANS OF TENNESSEE

It is necessary from time to time to remind physicians that it is illegal to sign a certificate for judicial hospitalization of a mentally ill patient unless he has examined the patient within three days of signing such a certificate.

The physician may testify as a witness at a court hearing for purposes of legal commitment only if he has examined or attempted to examine the patient within 20 days prior to the hearing.

It might be well for all physicians to obtain a copy of the new law pertaining to the mentally ill, which was passed in 1965. This can be obtained from the Tennessee Department of Mental Health, Cordell Hull Building, Nashville, Tennessee.

The Tennessee Medical Association is preparing a booklet to provide guidelines on these matters.

Careful definition of services is a basic essential, otherwise insurance actuaries cannot predict fees and devise premium payments. Dr. Westlake emphasizes that the description of service must include "*time*, the *nature* of the *service*, and the *nature* of the *physician*." The latter is essential to an understanding of the skills and experience involved for anticipated results. (The author cites the example of facial lacerations treated on the one hand by a plastic surgeon and on the other hand by a general surgeon, and the necessity for an adequate description of procedures for the benefit of the insurance actuary.)

The author provides an illuminating description of "what makes a fee?" and how curves of the *median*, *mean* and *mode* are arrived at in a given community, dependent upon economic conditions, age of physicians, degree of specialization, and increased cost of living. He shows how the variants in fees in a community permit the flexibility insurance companies need to permit the covering of unusual fees in special cases.

It is emphasized that the use of today's data processing "hardware" by insurance companies and government agencies is accumulating an immense amount of information about physician's fees. This makes it essential that care provided be clearly defined so the accumulating statistical data are reasonably accurate. The author emphasizes the use of the California system and the *Current Procedural Terminology* (AMA) for accuracy. He questions the practice of "the compilation of Relative Value Schedules, and the statement of a dollar conversion factor *by conference*, rather than *by collection of data*." The former permits a small number of doctors to decide what the values *should be* rather than what they truly are.

Finally, Dr. Westlake stresses the need "to develop Relative Value Studies for third party use in a truly objective manner." These include: (1) accurate definitions of services by specialty organizations, (2) accurate answers to surveys by the physician, relative to usual fees for noninsured solvent patients, (3) recognition that negotiated fee schedules may become ultimate necessities for many services by geo-

graphic areas and based on Relative Value Schedules to attain fairness among doctors, median or mean figures being used of necessity to control total costs.

Again, this is a readable account of what is involved in the term "usual, customary and reasonable fees."

R.H.K.

SPECIAL ITEM

EVALUATION OF DISABILITY— PANEL DISCUSSION

PARTICIPANTS:

JAMES N. THOMASSON, M.D.*—Internal Medicine—Private Practice, Nashville, Tennessee; Medical Consultant in the Disability Determination Section Office; Secretary of the Tennessee Medical Association.

GLENN E. HORTON, M.D.**—Private Practice, Memphis; Consulting Examiner for the Disability Determination Section; Secretary of the Memphis Academy of Internal Medicine.

MR. PAUL JESSEN, JR.***—State Director of Disability Determination, Nashville, Tennessee

and Members of the Memphis and Shelby County Medical Society.

MR. PAUL JESSEN, JR.:

It certainly is a privilege for a layman such as myself to appear before a medical group, particularly one as large and distinguished as this. Dr. Thomasson and I are here on behalf of a state agency, the Disability Determination Section. This office is part of the state Division of Vocational Rehabilitation. Our primary responsibility, however, is not rehabilitation, but determining eligibility for Disability Benefits under social security for Tennessee residents. It is our goal tonight to improve our communication with you as treating and consulting physicians—to explain the program and how it works—in order to save

*As Medical Consultant Member of the Panel.

**As Moderator Member of the Panel.

***As Administrative Member of the Panel.

Presented before the Regular Scientific Session of the Memphis and Shelby County Medical Society Meeting, March 7, 1967, at the Institute of Pathology Building, University of Tennessee College of Medicine, Memphis, Tennessee.

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you time in furnishing reports and in enabling your disabled patients to take advantage of these benefits.

Disability Insurance Benefits have been part of the Social Security System for more than ten years. Cash benefits to disabled persons and their dependents exceed two million dollars each month, in Tennessee alone. We handle some 15,000 claims yearly. About 50 per cent are denied. We want to be sure that no one is allowed who should not be. By the same token, those covered under social security have had no choice but to pay the taxes, and have a right to whatever benefits may be available under the regulations of this particular program.

As state employees, such as myself, and having the opportunity to work with practicing physicians who work part-time in our office, such as Dr. Thomasson, we in the Disability Determination Section are not unaware of the problems faced by the treating physician of today. We are indebted to the medical community for the time taken out of busy schedules to help us with these cases.

The organization of this program, as set up by Congress, involves federal-state cooperation. Each claimant files application for benefits at his local social security office. He must have worked for five of the last ten years, under social security, to be eligible to apply. The next step is to interview the claimant and obtain his age, education, vocational background and skills acquired on the job. The claimant enumerates his physical or mental complaints and tells how they affect him. He is responsible for obtaining from *you* a medical report covering the onset, progression, and current status of his impairments. The social security office may assist in getting these reports. There is *tremendous* emphasis placed on processing these claims within a reasonable length of time.

From the social security office, the case comes to us at the Disability Determination Section for evaluation, development of the evidence if necessary, and a decision.

The last stop for a claim is social security headquarters in Baltimore. Here the state decision is reviewed, and if adopted, denial notice or payments sent to the claimant.

Denied claims may be appealed and can eventually reach the federal courts. Similarly, allowed cases come up for re-evaluation if the patient returns to work or, if he was expected to recover, a date was set for medical re-examination. Benefits are terminated if the individual returns to substantial work or is shown by medical evidence to have the capacity for substantial work. In some cases, a period of trial work is permitted prior to stopping benefits.

This is intended as an incentive toward rehabilitation. All claimants, allowed or denied, are considered for referral to the regular Vocational Rehabilitation program.

What is the definition of disability under which we operate? Basically, an individual must be prevented for one year or more, by his condition, from doing any substantial work he can perform with his handicap and with his vocational qualifications. That is, what function does he have left, and how does this relate to the demands of jobs for which he can qualify. There must be inability to perform *any* work, not just the claimant's last occupation.

Some claims are denied if disability began after the individual's period of coverage under social security ran out. For example, if your patient began work five years ago and stopped today, in the absence of any additional work, he will be covered for disability benefit purposes only through March, 1972. If he becomes disabled in April, 1972, benefits cannot be paid. Thus in reporting to us, dates are important.

Let me close by saying that, due to the semijudicial nature of the claim process, the substantial money involved, and the importance to the person filing, each case must be adjudicated on its own merits and be documented with as much objective medical and vocational data as possible. Now I'd like to turn the program over to Dr. Thomasson.

DR. JAMES N. THOMASSON:

There have been a number of questions over the past few years from doctors all across the state and we wondered what was the best way to answer these. We approached all the County Medical Societies about presenting a program like this one in an effort to answer these questions and to familiarize you with the problems in disa-

bility evaluation from our standpoint. Whether we like it or not, Government participation in medicine is becoming more common every day and with the extension of Medicare, by 1970, we may see the end of the charity patient. So we must be interested in the economics of medicine as it relates to the Federal Government. Mr. Jensen mentioned earlier that we cannot pay for initial medical information. I am sure you can see the analogy here to a so-called deductible which we doctors have always favored. We always feel that the patient should have to pay something.

Now a word about the doctor's role in the State Office. There are six of us practicing physicians; one surgeon, two internists, a neurologist, an orthopedist, and a retired industrial physician. This is Dr. B. F. Byrd, with whom I am sure you are all familiar. Our surgeon, and Chief Consultant, is Dr. Jimmy Gardner. It is our function to advise the Counselor about the type of medical information we need. We have several other functions such as training a new Counselor in medical terms, various diseases, which ones are disabling, and to what extent the patient must be affected by a certain disease before they can be allowed disability benefits. In addition to training the Counselors, we meet with them on their problem cases. Although about 40 per cent of the cases are adjudicated on the basis of medical information already submitted, in many cases we need additional information and we are behind the requests for this additional data. We often call physicians on the telephone using the State's wide area telephone service which keeps us from having to pay long distance rates. If any time some of you have a question about some action taken by the State Office, you might call the physician in the Disability Determination Section, and if he is not there at that particular time he can call you back later.

You all are familiar with the additional information we need such as laboratory tests, cardiograms, pulmonary function studies, etc. As you know, medicine has changed over the past few years and we no longer only see the patient who wants to be treated. We see three categories of patients; those who want to prove they are disabled, those who want to prove they are

in good health, and those who need therapy. Our approach to each type of patient naturally is different. This explains why the information submitted by the treating physician may be inadequate for our purposes. Many of these people at the time they were treated were not involved in filing for disability benefits. One thing that really throws us into a tizzy in the State Office is the statement at the end of the medical report that this patient is definitely totally and permanently disabled. Then we have to set out to prove whether or not he is disabled for purposes of this program. We do like for you to tell us what you think the limitations on the patient are, but we not only consider what work the patient has been doing, but what other jobs he may be capable of with his condition and possibly what jobs he can be trained to do. So the statement that they are totally and permanently disabled may not be true although they are unable to continue in their last job.

The fees for the consultative examinations that we buy are set by the Medical Advisory Committee to Vocational Rehabilitation, which is the parent agency. Many men often wonder why their patient is sent to another doctor for examination. Of course any physician who is a specialist and is interested in doing examinations for our purposes may be added to the list and the number of referrals that he will get will depend upon the service the department gets from him. If the reports are thorough and prompt, so that we can process the application, he will be asked to consult more often than the doctor who may be delinquent in submitting his report. These consulting reports are in narrative form and those of us who are not consultant examiners receive a form which is a four-page document, mostly blank, that allows plenty of room for narrative information about our patient. I think most of us do prefer to submit a narrative report. This form was voted on and approved by doctors in six states, although I don't know that Tennessee was one of them. I think that is all we may have time for, but we would like to have questions from the floor. I am sure many of you may have some.

DR. GLENN E. HORTON:

Before we call for questions I would like to make one additional remark, and that is that as physicians it is our responsibility to define and describe medical impairments. The decision as to disability is based not only on medical factors but also age, education and the patient's work background. Also, although this is a talk on disability evaluation, I would like to mention the work of the Division of Rehabilitation. Many of these patients are referred to the Rehabilitation Division for services and I am sure many of them do not realize that they have capabilities in that they may be served and assisted in returning to productive work. It has been determined that the cost of rehabilitating a client successfully is often only one-tenth of the amount that is regained in taxes *alone*, after the person returns to work. Many of these patients will not qualify for disability benefits, but I will tell you this man is not happy unless he can stand on his own two feet. Disability may strike any of us. But I know that it is inherent in us and in our patients that we are not fully happy unless we can function constructively. I feel very strongly that we as physicians have been given great privileges of knowledge and insight into people, and with these privileges comes responsibility—the responsibility to help our patients whether it be assistance for the *genuinely* disabled or in aiding them toward rehabilitation and returning to productivity. Do we have any questions from the floor at this time?

DR. DUANE M. CARR:

I have the impression from filling out forms of Government Agencies and insurance companies that they are asking us to tell them how much disability the patient has to adjudicate the case for them. Is there any place on your forms for us to give the medical limitations of the patient?

MR. JESSEN:

That question may be more in Dr. Thomasson's field than in mine, but I can give you the administrative viewpoint on it. In answer to your question, yes. In fact, that is all we are asking for the medical details of the impairment and how it affects the in-

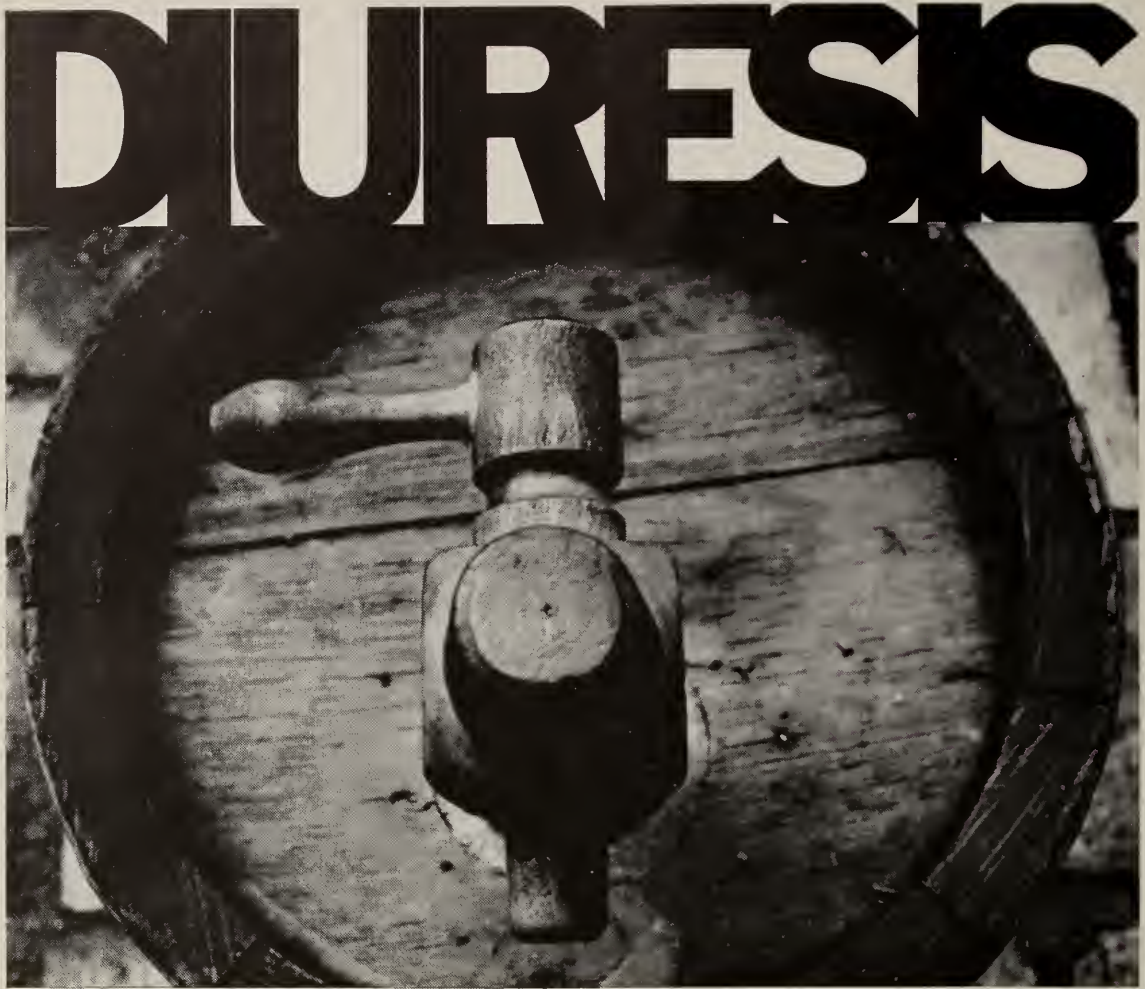
dividual—what function does he have left, what activity should he avoid? As you well know, Dr. Carr, your definition of disability, my definition of it, and Jim Thomasson's definition of it would probably all be different. The same is true in connection with agencies handling disability claims. Veterans Administration may take one view and social security may take another. So what we try to do is to take you, as the physician, out of the middle of the decision and ask you to report on the impairment and the limitations and not comment on whether or not this seems to constitute a disability. Hopefully, with this approach, the patient cannot come back to you and say that because of what you said, his claim was turned down. In practice, we know that this does happen on occasion. Dr. Thomasson, would you like to comment on this?

DR. THOMASSON:

I think you covered it very well, Paul. What Dr. Carr was probably referring to is Workman's Compensation. This does depend on the treating physician to estimate the degree of disability, concerning the work that the man was doing. Of course, an impairment may be totally disabling or it may not be disabling at all. A radiotelegraph operator who has both legs off is not disabled but he is certainly impaired. On the other hand, a walking postman who has both legs off is disabled. Yet the impairment is the same in the two individuals. The Disability Determination Section does not want a statement of disability but rather the degree of the impairment and we try to relate to what the man has done in the past, what his education is, what his social background is, and so forth.

DR. HORTON:

This also brings up the matter of transferable skills. Dr. Carr is absolutely right that the insurance companies do place you in sort of a judicial position and let you make a statement as to disability. This is not true with the Disability Determination Section. They primarily look to us for what the man can do . . . can he lift 25 pounds, can he walk several blocks, etc. Does he have angina on climbing a flight of stairs? What is his American Heart Asso-



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IN BRIEF

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1. Gold, Harry, et al.: *A System for the Routine Treatment of the Failing Heart*, The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967*, p. 97, 1966.

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ciation Classification? I have a friend who is a bank president who has a maximum breathing capacity of about 28 liters. This is a severe impairment but for him it is not disabling since he is able to work every day.

DR. WALTER K. HOFFMAN, JR.:

I am curious as to why a patient is referred to a consultant.

DR. THOMASSON:

Dr. Hoffman, you mean a consultant in the office?

DR. HOFFMAN:

No, I mean some one who does an examination for you. I have in mind the case of a 52-year-old woman who had severe renal disease and had just had an IVP performed and was sent by you a few blocks away to another physician who performed a second IVP.

DR. THOMASSON:

Well, of course, in a program of this size some mistakes are bound to occur. But chances are, the treating physician did not report that the intravenous pyelogram had been done. If all the information had been in file I feel that we would have picked up the telephone and called for this additional information that was needed. What usually happens in a case requiring a consultative examination is that you have two or three conflicting medical reports from physicians who have treated the patient for different ailments and their reports, based on the condition they have been treating, are widely divergent and this is the only way we can settle this problem. Also, for example in a patient who has pulmonary emphysema, it is not necessary to do pulmonary function studies to treat this patient but the social security administration does require that we get pulmonary function tests on almost all pulmonary cases. Occasionally we will get arterial oxygen studies as well.

MR. JESSEN:

Although our time is almost up, before we take another question, I would like to make one comment on this consultative examination process. A considerable amount of money is spent in this area, and in order to obtain the most value for this money, the

information can be made available to the treating physician, for treatment purposes, if he will write to us. Of course, we do have to have the patient's consent and the consent of the examining physician but this ordinarily is no problem. One other topic that involves economics and that has been raised previously by Dr. Calandruccio, is that while we are not able to pay for evidence that is on record, if we need additional tests such as a chest film or a cardiogram to document and wrap up a case, we can purchase these from the attending physician and pay him in accordance with the regular Vocational Rehabilitation fee schedule. We have not asked you to do this very often, primarily because most of the physicians do not want to be involved this deeply in the disability decision. But if in your report you give us some indication of what additional tests might be valuable and we know that you are interested in doing these, we would be delighted to do more of this. I think we have another question now.

DR. A. ROY TYRER, JR.:

I wonder if one of the panelists could comment on the proposed social security legislation that is before the Ways and Means Committee now and also on whether or not any changes are proposed in the fee schedule. I think it is well known to all of us that the State Medical Association has gone on record as favoring usual and customary fees.

MR. JESSEN:

Well, I can answer the first part of that question. Frankly, you may be as up to date as I am as to just what is contained in the proposed legislation. Congress and social security pretty well make the rules and we play the game. However, I do know that it is proposed that widows be brought under the disability program and also that Medicare benefits may be extended to those who are already drawing disability benefits. I would like to ask Dr. Thomasson to cover your question as to fees since he is a member of the Medical Advisory Committee to Vocational Rehabilitation.

DR. THOMASSON:

This committee met last year in August and we recommended at that time that the

Division go to usual and customary fees as soon as possible. I understand that this has not been done as yet due to lack of funds. We will meet again in August and will bring it up again.

DR. HORTON:

We wish to thank all of you for your participation.

(Reprinted from the Memphis and Mid-South Medical Journal, August, 1967.)

IN MEMORIAM

Pistole, Walter H., Memphis. Died October 21, 1967, Age 86. Graduate of University of Nashville Medical Department, 1905. Member of Memphis and Shelby County Medical Society.

Little, Filas Jerome, Jr., Morristown. Died October 21, 1967, Age 46. Graduate of Medical College of South Carolina, 1945. Member of Hamblen County Medical Society.

Calhoun, Harold W., Union City. Died October 21, 1967, Age 49. Graduate of University of Tennessee College of Medicine, 1942. Member of Northwest Tennessee Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

Dr. Hawley Seiler, President of Southern Thoracic Society, Tampa, Florida, gave the scientific presentation on "Medicine's Burning Question" at the meeting of the Society on November 7th. The program was sponsored by the Shelby County Tuberculosis & Health Association. The meeting was held in the auditorium of the Institute of Pathology of the University of Tennessee and a session of the Society's House of Delegates followed the scientific presentation.

Nashville Academy of Medicine Davidson County Medical Society

The Nashville Academy of Medicine met at the Veterans Administration Hospital on November 8th, with Dr. Greer Ricketson, President, presiding. Dr. Allan C. Barnes, Director of the Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine gave the scientific presentation on "The Control of Reproduction."

The Society also heard reports from its Nominating Committees, presenting a slate of candidates for election to offices of the Academy for 1968.

West Tennessee Consolidated Medical Assembly

On October 3rd, Dr. James Culbertson, director of the Memphis Regional Center, was the guest speaker at the West Tennessee Consolidated Medical Assembly in Jackson. Dr. Culbertson's subject was "The Meaning of the Regional Complex and its Relationship to West Tennessee."

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

A group of advisors to the Public Health Service and an AMA official separately emphasized the seriousness of the health manpower problem. The Allied Health Professions Education Subcommittee of the National Advisory Health Council said in a report to the PHS surgeon general, Dr. William H. Stewart, that health manpower is the critical factor in the provision of health services in this nation. The report said: "With the rising capacity of medicine to provide a satisfying array of services, the lowering of financial barriers to service, and the growing acceptance of a public responsibility to assure that all people have adequate medical service, needs and demands for medical care continue to outstrip their availability."

"Many people are struggling with approaches to the measurement of health manpower shortages. But no one figure can express the total need. And even if it were possible to envision ideal health services staffing for a community, a state, or a nation, the continuing development of new knowledge and techniques, new patterns of service, and new methods of payment are constantly changing the needs, both for numbers and varieties of health workers."

Dr. Alvin J. Ingram of Memphis, a member of the AMA Board of Trustees, told the

AMA Conference on Aging and Long-Term Care in Baltimore, Md., that there is an urgent need for all categories of health personnel. "We have been challenged by government to revamp our system of health care, to make it available to everyone and to do so more economically than at present. To do this will require not only larger numbers of health personnel, but more coordinated and efficient use of all members of the health team.

"The basic purpose of all of medicine—research, education and practice—is the application of the art and science of the profession to the individual patient or to the community as a whole. Furthermore, we are constantly exposed to remarks about the brain drain, the siphoning of physicians trained in other countries and their acceptance here to fill our own voids, even at the expense of intensifying already desperate shortages in other nations.

"Yet we have our brain drain in this country—the consistent and progressive decrease in the ranks of practicing physicians as members of the profession turn from the primary responsibility of patient care to research, teaching and administrative service. In the past 15 years, the number of physicians in full time private practice has decreased at the rate of almost one percent a year, from 75 percent in 1950 to 62 percent in 1965." Dr. Ingram decried the growing dependence of the nation's health care system on foreign physicians. "This dilemma can hardly be exaggerated. Not one foreign graduate meets our domestic requirements which include graduation from an approved medical school which has undergone regular, competent inspection."

★

Dr. Ingram cited government figures showing that the percentage of foreign physicians in the United States had risen from 16 percent in 1956 to 26 percent in 1966 and that nearly half of them were from under-developed or developing countries that badly need their services at home.

★

The House Committee on Government Operations has issued its third report charging costly and inefficient administration of research grant programs by the National In-

stitutes of Health and other Public Health Service bureaus. The Congressional watchdog panel said the PHS had made relatively little effort to improve its administration of grants since the committee's two previous reports in 1961 and 1962.

"Inadequate administrative performance is demonstrated, for example, by the inept handling of payments for the indirect research costs of grantees and the extremely poor administration of the general research support and health sciences advancement award programs," the recent report said. "NIH and other PHS bureaus were found to have made excessive indirect cost payments to grantees." (About \$500,000 in one case.)

The American Medical Association supported legislation to continue federal aid for construction, training and research under the Health, Education and Welfare Department's retardation program, but opposes grants to help pay for initial staffing. The AMA position was outlined by Dr. F. J. L. Blasingame, AMA Executive Vice President, in a letter to the House Public Health and Welfare Subcommittee. He said: "The extent to which the problem of mental retardation can be ameliorated in future years depends largely upon continued research. Although some breakthroughs have been effected such as the prevention of some types of mental retardation as a result of our increased knowledge of body metabolism, there are still gaps in research, personnel and financing which must be overcome. While the ultimate answer to the problem of mental retardation is prevention, we recognize that in the meantime, mentally retarded individuals must be cared for and must be educated and trained to the limit of their capabilities.

"In this regard, the AMA supports efforts to provide higher standards of care for the institutionalized retarded, special educational programs day care centers within the community, counseling services for the parents of retarded children, and efforts to create job opportunities for retarded adults. For these programs to be effective, the nation needs additional facilities and an increase in properly qualified personnel. We, therefore, are pleased to submit for the record our continued support of the expansion, extension and improvement of facili-

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ties and services through construction, training and research grants. . . .

"The bill, however, also amends the present Act to authorize grants for meeting a portion of the cost of compensating professional and technical personnel during the initial operation of the facility. Although such federal financial assistance during the early years might enable a mental retardation facility to undertake a more comprehensive program than it might otherwise attempt, it can be demonstrated that once reliance is placed on a federal subsidy for staffing, the role of the federal government as a provider of operating funds will not easily be ended. Once a facility has been constructed, the community can and should assume the responsibility for its operation, including the costs of staffing."



President Johnson appointed a National Advisory Commission to make recommendations on health facilities needed by the United States in the future. The chairman is Boisfeuillet Jones of Atlanta, Georgia, president of the Emily and Earnest Woodruff Foundation and a former special assistant for health and medical affairs for the Department of HEW.



The recently-enacted Vocational Rehabilitation Act of 1967 creates a National Center for Deaf, Blind Youth and Adults, sets up a special system to grant federal aid, through state rehabilitation agencies for handicapped migrant workers, continues the federal-state financing system of state rehabilitation agencies for another two years, extends for another year federal planning grants to states studying the needs of the disabled, and eliminates state residency requirements for proving residency before aid can be received.

MEDICAL NEWS IN TENNESSEE

Annual Convention of Tennessee Licensed Practical Nurses' Association

The week of October 29-November 4 was proclaimed Tennessee Licensed Practical

Nurse Week by Governor Buford Ellington in honor of the 19th annual convention of the TLPNA in Cleveland. "Unity in Action" was the topic of the keynote address by Dr. Gilbert Varnell of Cleveland. Approximately 200 practical nursing students and 300 LPN's from all sections of Tennessee also heard Mrs. Joyalys Henderson, R.N., instructor of practical nursing, McMinn County Area Vocational School, speak on "Why Belong?" and Drs. Madison S. Trewhitt and John Appling, Cleveland, discuss "Pre-Operative—Post-Operative Anesthesia Care" and "Poisoning." The Association was founded in 1949 to advance the ideal of comprehensive care to the sick and to promote and protect the general welfare and interest of all licensed practical nurses, working with allied health groups, governmental groups and the public in carrying out these objectives.

Medical Assistants Sponsor Workshop

The 7th Annual Medical Assistants Educational Workshop, sponsored by the Consolidated Medical Assistants Chapter of West Tennessee, was held in November in Jackson. The objectives of the workshop are to promote efficiency, to render educational services and to stimulate a feeling of fellowship and cooperation among the medical assistants. Three study sessions were held November 6, 13 and 20 with a banquet climaxing the workshop on November 27, at which time certificates were presented to those who successfully completed two study sessions. Lecturers and subjects included: Dr. Robert Kiger, Nashville—"Space Medicine"; Dr. Bobby Higgs, Jackson—"Congenital Heart Disease"; Dr. Donald R. Lewis, Jackson—"The Doctor's Responsibility to the Medical Assistant"; Dr. C. L. Durham, Maury City—"Recognizing and Handling the Emotionally Disturbed Patient in the Office"; Dr. Swan Burrus, Jr., Jackson—"Amnesia"; Dr. R. L. Wilson, Henderson—"Current Concepts of Estrogen Replacement Therapy"; and Dr. Harry D. Johnson, Memphis—"Recent Advances in Treating Leukemia."

University of Tennessee College of Medicine

Neuton Stern Professorship—The third annual observance of the Neuton Stern Visiting Professorship was observed on November 17th with Dr. Sol Sherry, professor and co-chairman of the department of medicine at Washington University School of Medicine, St. Louis, as lecturer. The event is jointly sponsored by the U.T. Department of Medicine and the Memphis Heart Association.

Participating Faculty—Dr. Marcus J. Stewart, clinical associate professor of orthopedic surgery, was guest speaker at a postgraduate course on fractures and joint injuries at the University of Colorado Medical Center, Denver, November 1-3. The course was sponsored by the division of orthopedic surgery and the office of postgraduate medical education of the University of Colorado Medical School. . . . Dr. Paul C. Kemmerly, assistant professor of anesthesiology, served as an examiner to the American Registry of Inhalation Therapists at the annual meeting of the American Association for Inhalation Therapy in Los Angeles, November 11-17. . . . Dr. F. Christine Brown, research associate in the Department of Psychiatry and head of the biochemical laboratories at the Brain Research Institute, Tennessee Psychiatric Hospital, was featured speaker at the inservice education program at the U.S. Naval Hospital, Millington, on November 15. Her subject was "Hallucinogenic Drugs."

St. Jude Children's Research Hospital

Brian R. McAuslan, formerly assistant professor of biology at Princeton University, joined the faculty of St. Jude Children's Research Hospital and the University of Tennessee as Associate Professor of Microbiology on September 1st. He is working at St. Jude in the laboratory of Virology on genetic and regulatory mechanisms of virus production in cells.

Meharry Medical College

In a major step to bridge the gap between the technical advances of medical science

and comprehensive patient care, Meharry Medical College has established a new department of family and community health. Dr. Leslie A. Falk, a specialist in community and public health, has been named chairman of the new department and director of the North Nashville Comprehensive Community Health Center. Dr. Falk has been chief consultant to the Neighborhood Center project for more than a year and came to Nashville from the University of Pittsburgh Graduate School of Public Health. He was also adjunct professor of medical and hospital administration.

The new department will be in the faculty of medicine and will be assisted by a two-year \$54,000 grant from the Bureau of Health Manpower, U.S. Public Health Service. It will incorporate the present department of preventive medicine, and will serve to develop in the future health profession a concern for the patient as a human being in the context of his family and community.

PERSONAL NEWS

Officers for 1968 of the Tennessee Academy of General Practice were installed at the Academy's Annual Assembly in Gatlinburg on November 2nd. They are: **Dr. Carson Taylor**, Lawrenceburg, President; **Dr. James R. Royal**, Chattanooga, President-Elect; **Dr. Oscar M. McCallum**, Henderson, Vice-President; **Dr. John S. Derryberry**, Shelbyville, Secretary-Treasurer; **Dr. Julian K. Welch, Jr.**, Brownsville, Delegate to AAGP; **Dr. Thomas W. Johnson**, Dyersburg, Alternate Delegate; **Dr. Basil A. Bland**, Memphis Speaker, Congress of Delegates; and **Dr. Arch Y. Smith, III**, Vice-Speaker.

Dr. Louis Ulin, Chattanooga, has been named a Fellow in the exclusive International College of Surgeons.

Dr. Dorothy L. Brown, Nashville physician and Tennessee legislator, was guest speaker on October 15th at the annual Founder's Day of the National Alliance of Postal and Federal Employees.

Dr. Alvin J. Ingram discussed his three-week tour in Vietnam at a recent meeting of the Memphis Rotary Club. Dr. Ingram was one of six physicians sent to Vietnam by the Department of State to evaluate the medical problems and health care needs of the civilian Vietnamese population.

Dr. Gordon McCall, a native of Blount County, has opened his office for the practice of internal medicine in Chilhowee Medical Center, Maryville.

Dr. McCall received his M.D. degree from the University of Tennessee College of Medicine in Memphis and served his internship and residency at U.T. Hospital in Knoxville.

Dr. Paul V. Nolan, Chattanooga, has been named to the Board of Directors of the Tennessee Division, American Cancer Society.

Dr. Vernon Reynolds, director of the Cancer Chemotherapy Clinic and surgeon in charge of the General Surgical Clinic at Vanderbilt University Hospital, was guest speaker at the Columbia Rotary Club on November 2nd.

Dr. John H. Wolaver, Knoxville Psychiatrist, has been awarded the American Medical Association's Humanitarian Service Certificate for his participation in the AMA Volunteer Physicians for Vietnam Program. The award was presented by Dr. George A. Zirkle, Jr., President of the Knoxville Academy of Medicine, at the Academy's monthly meeting in October.

Dr. Wm. P. Hardy, Oak Ridge, has been named President of the Tennessee State Pediatric Society. **Dr. J. Hicks Corey, Jr.**, Chattanooga, was named President-Elect, and **Dr. Wm. B. Wadlington**, Nashville was re-elected secretary-treasurer.

Dr. H. H. Barham and **Dr. C. L. Frost**, Bolivar, announced the removal of their offices into the new Medical Dental Arts Clinic on West Lafayette Street.

Tennessee physicians inducted as Fellows of the American College of Surgeons during the 53rd Clinical Congress of the College in October were: **Drs. Hugh Francis, Jr., James M. Hill, Joseph H. Miller, Roy C. Page, James T. Robertson, Thomas V. Stanley, Jr.** from Memphis; **Dr. John H. Bell**, Knoxville; **Dr. David P. Hall**, Chattanooga; **Dr. Robert A. Hardin**, Nashville; **Dr. James R. Headrick**, Chattanooga; **Dr. Ernest L. Hendrix**, Oak Ridge; **Dr. Alfred P. Rogers**, Chattanooga; **Dr. Dillard M. Sholes, Jr.**, Elizabethton; **Dr. W. H. Stephenson**, Gallatin; and **Dr. John K. Wright** of Nashville.

Dr. Roger T. Miller, Chattanooga pediatrician, narrated a film, "Why Billy Couldn't Learn," at a recent meeting of the Hamilton County Association for Children with Learning Disabilities, Inc.

Dr. A. K. Ghosh, Waynesboro, has been appointed County Medical Examiner for Wayne County.

Dr. Lee Calvin Sheppard, Jr., has joined the active staff of the Jackson-Madison County General Hospital, and is associated with Dr. Chester Jones and Dr. Augustus Middleton in the Department of Pathology.

Dr. E. Perry Crump chairman of the department of pediatrics at Meharry Medical College, has been elected board member-at-large for the National Association for Retarded Children.

Dr. Harry L. Page, Jr. has been appointed director of St. Thomas Hospital's new cardiovascular laboratory and educational director of medical service. Dr. Page, a graduate from Vanderbilt University School of Medicine, joins St. Thomas from the University of Colorado Medical Center where he was a Fellow in cardiology.

Dr. Sam Carney, Nashville, has been named President of the Davidson County Pediatrics Association.

A portrait of the late **Dr. Earl Campbell, Sr.**, who served 42 years as the school physician at the University of Chattanooga, was unveiled in impressive ceremonies on October 28th at the University. The portrait will be given a permanent place on the wall of the lobby in Maclellan Gymnasium.

ANNOUNCEMENTS

Calendar of Meetings, 1968

State

Feb. 14-16	Mid-South Postgraduate Medical Assembly, Memphis
April 18-20	Tennessee Medical Association, Read House, Chattanooga

National

Jan. 19-20	American Society for Surgery of the Hand, Palmer House, Chicago
Jan. 20-25	American Academy of Orthopaedic Surgeons, Palmer House, Chicago
Jan. 29-31	Society of Thoracic Surgeons, Roosevelt Hotel, New Orleans
Feb. 3-7	American Academy of Allergy, Statler-Hilton, Boston
Feb. 6-10	American College of Radiology, Drake, Chicago
Feb. 8-10	Society of University Surgeons, Americana, New York
Feb. 8-10	Southwestern Medical Association, Sheraton—El Paso Motor Inn, El Paso, Texas
Feb. 19-21	American College of Surgeons Sectional Meeting, Statler Hilton Hotel, Dallas
Feb. 22-24	Central Surgical Association, Sheraton-Cleveland, Cleveland
Feb. 28-Mar. 3	American College of Cardiology, San Francisco Hilton Hotel, San Francisco
March 1-3	American Association of Pathologists and Bacteriologists, Drake Hotel, Chicago
March 11-13	American College of Surgeons (Sectional Meeting for Doctors and Nurses), Williamsburg Inn, Williamsburg, Va.
March 18-20	American Academy of Pediatrics, Regency Hyatt, Atlanta
March 24-30	American Society of Clinical Pathologists (Interim) Roosevelt Hotel, New Orleans
March 25-28	Southeastern Surgical Con-

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Washington, D. C.
- March 25-29 American College of Allergists,
Denver Hilton, Denver
- March 29-31 American Society of Internal
Medicine, Hotel Statler, Boston

ACCP Resident Loan Fund

A Resident Loan Fund has been established by the American College of Chest Physicians to assist young physicians in taking postgraduate training in the specialty of diseases of the chest. Any qualified resident may apply for a loan by writing to the Committee on Resident Loan Fund in care of the Executive Offices of the College. All applications must be approved by the Committee before a loan can be granted.

The total amount of a loan to any individual in any one year may not exceed \$1,500.00 and, except under special circumstances, the loan will be made available on the basis of \$125.00 per month. No individual may borrow more than \$4,500.00. All loans must be protected by life insurance, the premiums to be paid by the borrower.

Interest on the loan is charged at the rate of 3 percent per annum. Neither principal nor interest on the loan need be repaid for a period of three years after the date of the first loan advance, provided the physician is continuing his postgraduate training in diseases of the chest.

AAP Announces Head Start Medical Consultation Program

A new partnership between Project Head Start and the pediatricians of America has been announced by the Office of Economic Opportunity and the American Academy of Pediatrics. Sargent Shriver, director of OEO, and Dr. Wm. S. Anderson, president of the AAP, in a joint statement, said that the Academy will organize and direct the Medical Consultation Program of Head Start Child development programs in nearly 2,000 communities throughout the United States. The Academy has chosen Robert S. Mendelsohn, M.D., F.A.A.P., a pediatrician from Chicago, and formerly medical director, Project Head Start, Cook County Office of Economic Opportunity, to direct the program.

Initially, the AAP will select about 300 physician consultants from its membership and from other leaders in the field of child health, to evaluate the medical aspects of the Head Start program at the state and local level. Each medical consultant selected will work with the medical director and other health professionals in Head Start projects. He will review the medical aspects of Head Start applications submitted by a community; meet with local planning committees to map out Head Start medical programs; maintain contact with program medical directors; follow up and evaluate programs, and maintain liaison with OEO regional and national offices.

Consultants will work with the Office of Economic Opportunity representatives responsible for funding and evaluating Head Start health programs, helping them interpret the needs of the children, the resources of the community, and the success of the Head Start Programs. The consultant will supplement rather than replace, the medical and administrative skills available in each community.

ACP Postgraduate Courses—1968

The following postgraduate courses will be offered by the American College of Physicians in 1968. The courses are made possible in cooperation with the directors and institutions involved. Tuition fees: Members, \$60; Nonmembers, \$100. Registration forms and requests for information are to be directed to Edward C. Rosenow, Jr., M.D., Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia, Pa., 19104.

- | | |
|--------------------|---|
| Jan. 15-19 | "Neurology and the Internist,"
University of Miami School of
Medicine, to be held at The
Eden Roc Hotel, Miami Beach,
Fla. |
| Feb. 5-9 | "Psychiatry and the Internist,"
University of Southern Calif.,
School of Medicine, Los An-
geles. |
| Feb. 19-23 | "Intensive Care Units," Uni-
versity of Cincinnati Medical
Center and VA Hospital, Cin-
cinnati, Ohio |
| Feb. 28-
Mar. 2 | "Hypertensive Cardiovascular
Diseases: Mechanism and
Treatment," Clinical Research
Institute of Montreal, Montreal,
P.Q., Canada |
| Mar. 14-16 | "The Clinical Selection of Pa-
tients for Cardiac Surgery,"
Mayo Graduate School of Med-
icine (University of Minnesota)
and Mayo Clinic, Rochester,
Minn. |
| Mar. 18-22 | "Psychiatry and the Internist,"
Albany Medical College of
Union University, Albany, N.Y. |
| Mar. 28-30 | "Current Concepts in Physi-
ology of Respiration, Circulation
and Electrolyte Metabolism,"
The Somerset Hotel, Boston,
Mass. |
| April 22-26 | "Clinical Endocrinology — Re-
cent Advances in Diagnosis
and Treatment," Mayo Gradu-
ate School of Medicine and
Mayo Clinic, Rochester, Minn. |



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May 12-15	"Frontiers in Gastroenterology, University of Pennsylvania School of Medicine, to be held at The Bellevue Stratford Hotel, Philadelphia, Pa.	June 10-14	"Basic Principles in Internal Medicine, 1968," University of Iowa School of Medicine, Iowa City, Iowa.
May 20-24	"The Prevention and Early Detection of Disease in Clinical Practice," University of Pennsylvania School of Medicine, Philadelphia, Pa.	June 17-19	"Intensive Care Units" University of Colorado Medical Center, Denver, Colorado.
May 27-30	"Auscultation of the Heart," The Sheraton Hotel, Philadelphia, Pa.	June 19-21	"Infectious Disease: Mechanisms and Manifestations," University of Maryland School of Medicine, Baltimore, Md.

T M A

THE VIEWING BOX

Medicine's Not So Silent Partner

by the HON. DURWARD G. HALL, M.D.
Congressman, Seventh Missouri Congressional District

Since that crucial vote in the U.S. House of Representatives on April 8, 1965 when 286 House members defeated 191 opponents of federal medicine and Medicare started on its way—our profession has been asked by the federal government officials to join in partnership with the federal government, which is building bridges these days.

Leaders in all branches of Medicine freely offered their time and experience attending advisory committee meetings held in Washington, D. C. and Baltimore. Even some of the most liberal members of the radio, television, press, and periodical world who had been chewing on physicians for 20 years commended the professions new attitude of cooperation.

I, for one, urged cooperation then, and I urge it now, but it's time to blow the whistle at the fouls being committed by Medicine's new "partner," or "intervener," the federal government. I know of no other profession, group or industry, certainly not labor, not the legal profession, not the professional chemists, or the professional engineers, who in spite of their good works and contributions to society, are the victims of such malicious invectives and accusations, as is the medical profession.

Text of a talk given before the annual Conference of Presidents and Other Officers of State Medical Associations, Atlantic City, N. J., June 17, 1967.

The Subtle Hand

In spite of being the only group which is subject to the draft up to age 35, in spite of the fact that many physicians give so generously of their time caring for the indigent, on unpaid hospital and other medical committees and boards, in medical missions in Vietnam and throughout the entire world, there is a growing long list of current smears, legal actions, punitive investigations, and intended regulations, some of which I will cite, and all of which demonstrate that with a friendly partner like this, who needs enemies?

Let me cite a few examples: . . . The Medicare law's legislative author, Mr. Mills, guaranteed on the floor of the House of Representatives that the Social Security Administration would not use the new law to disturb existing patterns of medical practice. Yet Mr. Ball, the Administrator, now proposes that hospital-based physicians, especially the pathologists and radiologists, become employees of hospitals.

. . . During the testimony before the House Ways and Means Committee prior to passage of the legislation HEW officials vowed they wanted only to cover the 65 and older members of society, yet in the first session of Congress following enactment of the law, coverage of the disabled is requested—irrespective of whether such person is able to afford his own medical expenses.

. . . Though the law guaranteed two modes of payment for physicians, i.e., direct billing using receipted bill, or by the assign-

ment method, just three weeks ago while organized labor stumped the nation and filled the press with charges that organized Medicine was ruining the program by not using the assignment route exclusively.

HEW officials, behind closed committee doors, sought to require a statement by the physician on his receipted bill that charges shown were his total charges, thus permitting the federal government to exercise fixed-fee-control over any physician in the Medicare program. This isn't "keeping the faith, baby," if you ask me, HEW's own testimony shows about half the doctors have used assignment during the first six months of the program.

Propaganda at Taxpayer Expense

... Disregarding the advice of the medical profession, our fair-weather partner sends its emissaries throughout the land, at the taxpayer's expense, in support of the use of "generic-drugs-only" in welfare programs.

... Pro-administration Senators Phillip Hart and Gaylord Nelson, who possess not a single hour of medical credit in their educational background, and whose professional staff rosters fail to include any medically trained personnel unless you count hangers-on of the Kefauver inquisition as such, tell the American people, who have the finest medical system in the world; that physicians must:

- a. Turn over to the optometrists some elements of care and treatment of the eye
- b. Must relinquish to the druggists the right to select from their stocks of generic drugs the drug of the company which offers to the druggist the highest mark up
- c. They would deny physicians the right to prescribe either a generic or trade name drug.

... Now Webster defines partner as—an associate; sharer; participant. The federal government is hardly living up to its role in this definition when its OEO opens neighborhood clinics in cities where the local medical society's notice of the event is seen for the first time in a copy of the evening paper of the day of the grand opening. This has happened in several places—most recently, in my own state, in Kansas City. Nor is the government playing the game

when, in its demonstration cities' legislation there is provided mortgage guarantees wherein preference is given to those groups who offer prepaid care. These usually are labor organizations' plans wherein physicians are hired on a salary and their earnings exploited in a way contrary to medical ethics.

"Profit" Taxes on Revenue

... Nor is the federal government a friendly partner when in return for such good deeds as the voluntary Vietnam Medic Program for the civilians of that war torn country, its Commissioner of Internal Revenue proposed regulations to tax at the rate of 48 per cent net, advertising revenue of national and state medical journals and the journals and magazines of nearly every cultural organization in this country including the Boy Scouts and the Girl Scouts, the American Bar Association, the American Farm Bureau, the U.S. Chamber of Commerce, and I could go on naming some 600 educational, scientific, service, and cultural organizations whose members are from the professions, business, and labor.

These proposed regulations are based upon a 1950 (17 year old) law originally enacted by Congress to curb the abuse of tax free universities owning and operating manufacturing businesses in competition with tax paying businesses.

Our friendly partner's IRS has recently notified the Student American Medical Association that it is recommending withdrawal of the Association's status as a tax exempt organization. IRS says the group derives most of its income from advertising revenues in its magazine, the *New Physician*, and from sales of life insurance to its members.

Though we all know that voluntary community blood banks are organized "not for profit," and reduces costs of medically needed blood, yet our "friendly" partner's FTC claims they are a business, and in interstate commerce, and therefore are subject to the antitrust laws.

First Step in Harassment

Our friendly partner's Justice Department has filed a civil antitrust suit charging the College of American Pathologists and

its members with conspiring to monopolize the medical laboratory testing industry by price-fixing and forcing laboratories, owned by nonmembers, out of business by what it called "boycotting agreements." As you know the College pointed out that the timing of this action, coming as the inception of Medicare and immediately following the AMA Annual Meeting, makes it appear that this is but the first step in a campaign of harassment of the entire medical profession by the government.

There are times when the American public can hardly escape the conclusion that the Administration in power is deliberately

out to destroy the good name of the American physician, and to make him a subject of ridicule and contempt. For those who in one pious breath attack "McCarthyism" and in the other breath use such broad brush methods of innuendo, there is a double standard of immense contradictions.

I am still convinced that cooperation is the best road to travel, but cooperation which must be in its best and truest and fullest meaning. It must work both ways, and those representing *quality* care of patients must have the guts to stand for belief and principle. (*Reprinted from the Ohio State Medical Journal, August, 1967.*)

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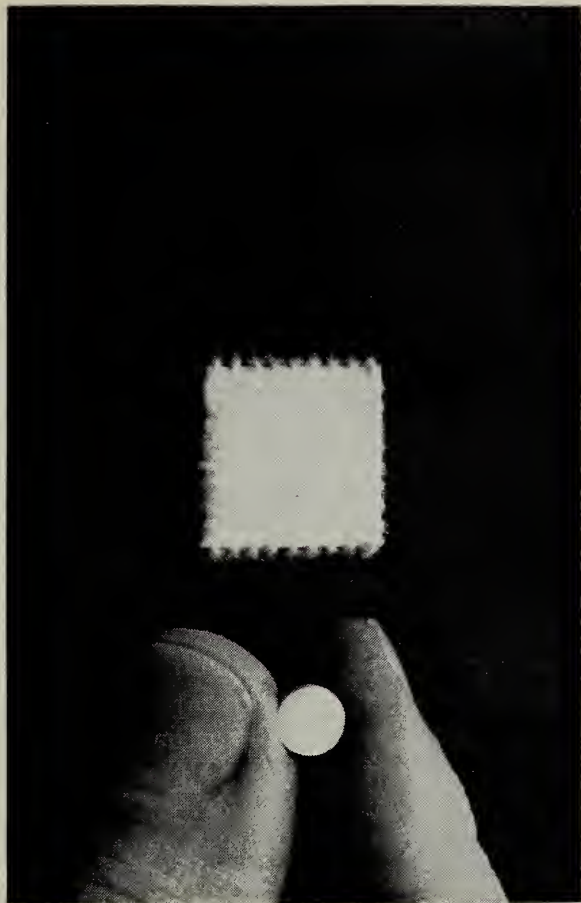
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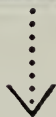
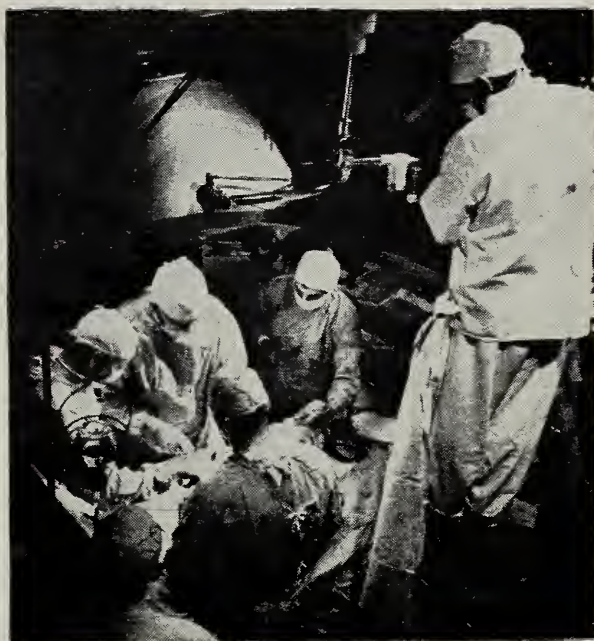
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3. Post Graduate Training
4. Military Service
5. Deceased Members for 1967

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Blanche S. Emerson
Blair D. Erb
James R. French
Fred Friedman
Oliver H. Graves
Walton W. Harrison
George Harvey
G. E. Hazelhurst, Jr.
Bobby Higgs
Robert S. Hill
Ben F. House
G. B. Hubbard
Leland M. Johnston
Chester Jones
G. Frank Jones
Duval H. Koonce
James D. Lane
J. A. Langdon, Jr.
Edwin M. Levy
Donald R. Lewis
Robert B. Mandle
William C. McAfee
Harold T. McIver
A. L. Middleton
Jesse Miller, Jr.
Henry N. Moore
Alfred J. Mueller
Lamb B. Myhr
Roy M. Neudecker
George Pakis, Jr.
L. G. Pascal, Jr.
James A. Phillips
John G. Riddler
Lee Rogers
Robert J. Smith
Charles Stauffer
H. M. Steadman
James L. Thomas
J. R. Thompson, Jr.
S. A. Truex, Jr.
R. T. Tucker, Jr.
F. E. Williamson, Jr.
George Wyatt
Paul E. Wylie
Harold R. Yarbro

Kenton

A. H. Gray

Lexington

Robert M. Conger
Cornelia J. Huntsman
Wesley F. Jones
Maurice N. Lowry
Warren C. Ramer
Jack C. Stripling
Charles W. White

Maury City

C. L. Durham

McKenzie

James Holmes, Jr.
James T. Holmes
James H. Robertson
S. S. Walker, Jr.

Medina

Robert H. Morris

Milam

Hubert P. Clemmer
James O. Fields
F. L. Keil
James H. Williams
Phillip G. Williams

Parsons

H. L. Conger

Saltillo

Howard W. Thomas

Savannah

H. D. Blankenship
Reece DeBerry
John D. Lay
Thomas V. Roe
Howard Whitaker, Jr.
Thomas R. Williams

Selmer

T. N. Humphrey
Harry Peeler
William M. Phillips
James H. Smith
Montie E. Smith, Jr.

Somerville

J. L. Armstrong
John M. Bishop
Frank S. McKnight
L. H. Plemmons
Karl Byington Rhea
Lee Rush, Jr.

Trenton

Edward C. Barker
Eugene C. Crafton, Jr.
John Wesley Ellis
James W. Hall
C. L. Holmes
J. L. Williams

Whiteville

Aubrey Richards

CUMBERLAND COUNTY MEDICAL SOCIETY

Crossville

James T. Callis
J. T. Campbell, Jr.
R. E. Cravens
Carl T. Duer
Paul A. Ervin, Jr.
William E. Evans
Harvey H. Grime
Donathan R. Ivey
H. F. Lawson
Robert M. Metcalfe
Stuart P. Seaton
Ramon S. Vinas

Pleasant Hill

Margaret K. Stewart

DAVIDSON COUNTY MEDICAL SOCIETY

Donelson

E. E. Anderson
Luther A. Beazley
Roy C. Ezell
Robert B. Gaston
C. H. Huddleston
Luther E. Smith
W. B. Wadlington

Goodlettsville

Lee F. Kramer

Hendersonville

Charles M. Cowden
Jerry Hunt
John Wesley Osborne
Robert D. Pilkinton

Madison

David L. Beaver
Charles B. Beck
L. Dale Beck
James E. Burnes
William J. Card
Sam W. Carney, Jr.
Frederic B. Cothren
Michael David Davis
Hillis F. Evans
George B. Hagan
James M. High
William H. Hill
Cyrus E. Kendall
Vern C. Manzano
H. T. McCall
J. C. Pennington, Jr.
R. L. Pettus, Jr.
Fred W. Ryden
Joseph W. Scobey
Howard C. Seely
Joe Sutherland
Jack Swan
Richard P. Taber
Harry Witzum

Murfreesboro

Jacob N. Fidelholtz

Nashville

Crawford Adams
Robert W. Adams, Jr.
Benton Adkins
L. A. Alcantara
William C. Alford
J. H. Allen, Jr.
Clyde Alley, Jr.
Joe Gary Allison
Ben J. Alper
Arthur R. Anderson
Edwin B. Anderson
H. R. Anderson
J. E. Anderson, Jr.
J. S. Anderson, Jr.
Robert S. Anderson
William C. Anderson
Larry T. Arnold
Daniel Baccus
Harry Baer
J. Mansfield Bailey
Thurman Dee Baker
Sidney W. Ballard
Preston Hite Bandy
Edward H. Barksdale
Paul Harold Barnett
Allan D. Bass
Jack M. Batson
Randolph Batson
D. Scott Bayer
Eric Bell, Jr.
Lynch D. Bennett
George N. Benson
Edmund W. Benz
Stanley Bernard
Geoffrey Berry
John H. Beveridge
Otto Billig
F. T. Billings, Jr.
George T. Binkley
R. T. Birmingham
E. L. Bishop, Jr.
Lindsay K. Bishop
Joseph M. Bistowish
James B. Boddie
Robert L. Bomar, Jr.
Arthur G. Bond
John Benjamin Bond
G. W. Bounds, Jr.
Louis A. Bowick, Jr.
John M. Boylin
Henry B. Brackin, Sr.
H. B. Brackin, Jr.
Cloyce F. Bradley
G. Hearn Bradley
James M. Brakefield
T. E. Brittingham
Stanley K. Brockman
Arthur L. Brooks
Dorothy L. Brown
James H. Brown
E. W. Browne, Jr.
Harry Gray Browne
J. Thomas Bryan
R. N. Buchanan, Jr.
John C. Burch
Joseph G. Burd
Henry Burko
George R. Burrus
Roger B. Burrus
B. F. Byrd, Jr.
B. H. Caldwell
William L. Caldwell
James J. Callaway
Calvin L. Calhoun
Richard O. Cannon
Joe Melville Capps
George K. Carpenter
G. K. Carpenter, Jr.
Oscar W. Carter
Anthony D. Casparis
Norman M. Cassell
Lee F. Cayce
Robert L. Chalfant
Eric M. Chazen
Abraham Pacha Cheij
Amos Christie
William M. Clark
Jeannine A. Classen
Kenneth L. Classen
Everett M. Clayton
Cully A. Cobb
Robert T. Cochran
John H. Coles, III
Harold A. Collins
John Richard Collins
George Edward Cooke
Charles Corbin, Jr.
Orrie A. Couch, Jr.
Frederic E. Cowden
George Boyd Crafton
James H. Crecraft
Jerrall P. Crook
R. R. Crowe

E. Perry Crump
W. Andrew Dale
Rollin A. Daniel, Jr.
William J. Darby
Philip V. Daugherty
George William Davis
Thos. C. Delvaux, Jr.
Wm. A. Demonbreun
H. C. Dennison, Jr.
Joseph C. Denniston
Walter L. Diveley
William M. Doak
William D. Donald
Earl D. Dorris
Robert Thomas Doster
Fred M. Downey, Jr.
L. Rowe Driver
Ray L. Dubuisson
Price H. Duff
George E. Duncan
Herbert Duncan
Thomas Ray Duncan
William H. Edwards
Lloyd C. Elam
Paul D. Elcan
James H. Elliott
P. C. Elliott
Irwin B. Eskind
Harry M. Estes
E. William Ewers
Don L. Eyster
William T. Farrar
J. L. Farringer, Jr.
William B. Farris
W. H. Faulk, Jr.
Ray O. Fessey
John P. Fields
Robert M. Finks
Benjamin Fisher
James H. Fleming, Jr.
Ross Fleming, Jr.
John M. Flexner
Howard R. Foreman
Garth E. Fort
John H. Foster
S. Benjamin Fowler
Richard France
Horace Merion Frazier
John W. Frazier, Jr.
Thomas Friddell
Thomas F. Frist
James L. Fuqua
R. K. Galloway
Charles K. Gardner
James C. Gardner
Sam Young Garrett
C. N. Gessler
Charles M. Gill
John P. Glover, Jr.
John R. Glover
Fred Goldner, Jr.
James E. Goldsberry
Donald A. Goss
David K. Gotwald
Louis S. Graham, Jr.
Burton Paine Grant
H. A. Graves, Jr.
Paul A. Green, Jr.
Ralph Greenbaum
Clifton E. Greer, Jr.
Newton B. Griffin
John W. Griffith, Jr.
Robert J. Griffin
John H. Griscom
Thomas Grizzard
Laurence Grossman
Milton Grossman
W. E. Gupton, Jr.
Arnold Haber, Jr.
David W. Hailey
Charles E. Haines
Wallace H. Hall, Jr.
Thomas B. Haltom
C. M. Hamilton
J. R. Hamilton
William M. Hamilton
Roy G. Hammonds
Axel Carl Hansen
Robert A. Hardin
Jackson Harris
Robert C. Hartmann
Aubrey B. Harwell
James S. Hastie
James T. Hayes
James William Hays
J. H. L. Heintzelman
James B. Helme
J. L. Herrington, Jr.
John G. Herzfelt
Robert M. Heyssel
B. K. Hibbert, III
Elmore Hill
Irving R. Hillard
John William Hillman
Charles S. Hirschberg
Charlie Joe Hobdy
G. W. Holcomb, Jr.

Fowler Hollabaugh
John D. Hopkins, Jr.
Wildor W. Hubbard
James M. Hudgins
Granville W. Hudson
Jerry K. Humphreys
Joseph E. Hurt
Janet K. Hutcheson
R. H. Hutcheson, Jr.
Vernon Hutton, Jr.
Maurice Hyman
M. D. Ingram, Jr.
A. P. Isenhour, Jr.
Joseph M. Ivie
J. Kenneth Jacobs
D. J. Johns
Alfonso P. Johnson
Ira T. Johnson
James W. Johnson
Marshall Johnson
C. R. Johnston
E. Palmer Jones
Frank E. Jones
John R. Jones
Orrin L. Jones, Jr.
William R. Jones
Thomas M. Jordan
Rudolph H. Kampmeier
Herman J. Kaplan
Alvin E. Keller
J. Allen Kennedy
W. G. Kennon, Jr.
Robert G. Kiger
Jack P. Kinnard
Lowry Dale Kirby
Carl T. Kirchmaier
J. A. Kirtley, Jr.
Eugene Klatte
Ralph R. Kling, Jr.
O. Morse Kochtitzky
Leonard J. Koenig
Kent Kyger
Charles J. Ladd
Roland D. Lamb
Lawrence P. Laughlin
Horace T. Lavelly, Jr.
David Hillis Law
G. Allen Lawrence
Albert R. Lawson
James P. Lester
Malcolm R. Lewis
Grant W. Liddle
Richard C. Light
Rudolph Alvin Light
Joanne Lovell Linn
Robert Joseph Linn
A. B. Lipscomb
E. E. Litkenhous, Jr.
Joseph A. Little
T. C. Littlejohn
James P. Loden
Jackson P. Lowe
S. L. Lowenstein
Frank H. Lutton
Philip L. Lyle
Charles W. MacMillan
Robert D. MacMillan
Robert H. Magruder
Guy M. Maness
Edward H. Martin
Travis H. Martin
Ralph W. Massie
Billy Joe Matter
J. Andrew Mayer
Ben R. Mayes
Curtis P. McCammon
G. Sydney McClellan
Robert E. McClellan
C. C. McClure, Jr.
Robert L. McCracken
Alexander McLeod
M. Charles McMurray
Barton McSwain
William F. Meacham
Arnold M. Meirowsky
Richard A. Meland
Andrew H. Miller
Cleo M. Miller
Joe Morris Miller
John Maurice Miller
Lloyd C. Miller
James Brown Millis
Lee R. Minton
Carl E. Mitchell
Edwin H. Mitchell
Thomas F. Mogan
Roy W. Money
Harry T. Moore, Jr.
N. B. Morris
P. G. Morrissey, Jr.
Max K. Moulder
I. Armistead Nelson
Dewey G. Nemec
Tom E. Nesbitt
Elliott Voss Newman
Oscar F. Noel

Margaret S. Norris
William T. Nunes
John R. Olson
Stanley W. Olson
William Fred Orr
James C. Overall
Robert C. Owen
Richard P. Ownbey
Fred Dillard Ownby
Homer M. Pace, Jr.
Harry Lee Page, Jr.
T. F. Paine, Jr.
Roy W. Parker
T. F. Parrish
Bernard J. Pass
Robert C. Patterson
C. G. Peerman, Jr.
Edna S. Pennington
T. C. Pennington
George Louis Perler
Frank A. Perry
Michael A. Petrone
William A. Pettit
J. M. Phythyon
D. R. Pickens, Jr.
Charles B. Pittinger
Phillip P. Porch, Jr.
Thomas E. Potts
Robert William Quinn
James S. Read
Robert M. Reed
Eugene M. Regen
Eugene M. Regen, Jr.
Sidney C. Reichman
Roy J. Renfro
Vernon H. Reynolds
Robert K. Rhamy
Lenore De Sa Ribeiro
John R. Rice
James P. Richards
Greer Ricketson
Douglas H. Riddell
Elkin L. Rippey
Samuel S. Riven
Joseph D. Robertson
David E. Rogers
Daniel Thomas Rolfe
Marvin J. Rosenblum
Sol A. Rosenblum
Louis Rosenfeld
Peirce M. Ross
Fred A. Rowe, Jr.
Robert Monroe Roy
Robert N. Sadler
Louis Sampson
Dan S. Sanders
Paula F. Sandidge
Houston Sarraat
Elwyn A. Saunders
John L. Sawyers
Julia E. Sawyers
J. H. Sayers, Jr.
C. D. Scheibert
Stephen Schillig
Jack Carlyle Schmitt
Lawrence G. Schull
Herbert Schulman
H. William Scott, Jr.
Addison B. Scoville
C. Gordon R. Sell
Sarah W. Sell
S. A. Shaffer
John L. Shapiro
Ben A. Shelton
W. F. Sheridan, Jr.
Abram C. Shmerling
Harrison J. Shull
William H. Siddon
Burton Silbert
Thomas E. Simpkins
T. E. Simpkins, Jr.
William T. Slonecker
Charles B. Smith
Daugh W. Smith
Henry Carroll Smith
John Randall Smith
Marion L. Smith
John Solomon
Harvey Spark
W. A. Spickard
Bertram E. Sprockin
Daphne Sprouse
Richard L. Steele
S. E. Stephenson, Jr.
Joseph Steranka
Frank W. Stevens
High L. C. Stevens
Lee William Stewart
W. R. C. Stewart
William S. Stoney
Joe M. Strayhorn
W. D. Strayhorn
W. D. Strayhorn, III
Wilborn D. Strode
Paul R. Stumb
W. D. Sumpter, Jr.
A. J. Sutherland, Jr.
John M. Tanner

G. J. Tarleton, Jr.
Edward L. Tarpley
Pauline Tenzel
R. T. Terry
A. B. Thack, Jr.
Clarence S. Thomas
Emil Dewey Thomas
James N. Thomasson
John B. Thomason
Charles B. Thorne
Spencer Thornton
Willard O. Tirrill
W. O. Tirrill, III
Kirkland W. Todd, Jr.
Robert H. Tosh
C. C. Trabue, IV
William H. Tragle
Carr A. Treherne
L. E. Traugher, Jr.
Cecil B. Tucker
John M. Tudor
Dorothy J. Turner
W. O. Vaughan
Vernon A. Vix
Joseph William Wahl
Ethel Walker
Matthew Walker
John M. Wampler
James W. Ward
Paul H. Ward
Russell D. Ward
Thomas F. Warder
John S. Warner
Thomas S. Weaver
Ben H. Webster
Joseph Weinreb
Bernard M. Weinstein
Arville V. Wheeler
Frank E. Whitacre
Joe T. Whitfield
E. E. Wilkinson
Edwin L. Williams
W. C. Williams, Jr.
John Aaron Wilson
Nat T. Winston
Frank G. Witherspoon
Norman E. Withauer
Frank C. Womack
Clarence C. Woodcock
M. C. Woodfin
John R. Woods
John K. Wright
Samuel S. Wright
John Lanier Wyatt
T. B. Zeffoss, Jr.

Old Hickory

Alvin Hawkins
James K. Lawrence
Robert P. Miller
Henry D. Murray
Howard C. Pomeroy
Edward Bullock Rhea
Wendell W. Wilson

Smyrna

Socrates Pinto

**DICKSON COUNTY
MEDICAL SOCIETY***Charlotte*

Mary Baxter Cook
James C. Elliott, Jr.

Dickson

James T. Allen
Walter A. Bell, Jr.
William A. Crosby
Shannon R. Curtis
James T. Jackson
L. C. Jackson
L. R. Jackson
William M. Jackson
Jack S. Kaley
Ewing W. McPherson

**FENTRESS COUNTY
MEDICAL SOCIETY***Clarkrange*

Shelby O. Turner

Jamestown

B. Fred Allred
Guy C. Pinckley
Jack Smith

**FRANKLIN COUNTY
MEDICAL SOCIETY***Deckerd*

Dewey W. Hood

Sewanee

Ruth A. Cameron
Charles B. Keppler

Henry Kirby-Smith
Joe L. Parsons, Jr.

Winchester

Jo C. Anderton
Reynolds Fite
Gerald E. Johnson
George L. Smith
J. Van Blaricum

**GILES COUNTY
MEDICAL SOCIETY***Lawrenceburg*

William H. Murrey

Pulaski

Robert B. Agee
Ronald R. Dinella
K. M. Kressenberg
William K. Owen
John U. Speer
David M. Spotwood

**GREENE COUNTY
MEDICAL SOCIETY***Greeneville*

V. R. Bottomley
Robert G. Brown
Robert S. Cowles, Jr.
Luke L. Ellenburg
Haskell W. Fox
Rae B. Gibson
Hal H. Henard
N. P. Horner
C. D. Huffman
A. K. Husband
Ben J. Keebler
C. B. Laughlin
Haskell B. McCollum
James R. McKinney
David O. Patterson
Calvin R. Reviere
Kenneth Susong
W. C. Thacker

Mosheim

Dale Brown
Graydon Evans

**HAMBLEN COUNTY
MEDICAL SOCIETY***Dandridge*

O. L. Merritt

Flag Pond

Josiah B. Sams

Jefferson City

David C. Cawood
John W. Ellis, Jr.
Samuel C. Fain
Jessie Eugene Howard
Frank L. Milligan
Estle P. Muncy

Morristown

W. K. Alexander
L. R. Barclay
Mack J. Bellaire
H. T. Brock
J. D. Caldwell
Kemp Davis
Donald Ray Dees
Clarence J. Duby, Jr.
W. J. Gutch
Crampton H. Helms
John H. Kinser
F. J. Little, Jr.
Everette G. Lynch
Robert L. Mueller
John L. Pearce
O. C. Renner, Jr.
James W. Richardson
Charles S. Scott
Powell M. Trusler

Rutledge

Leander C. Bryan
Tenny J. Hill

Whitepine

Erman Dale Allen
Eugene R. Baker

**HAWKINS COUNTY
MEDICAL SOCIETY***Edison*

John M. Pearson

Rogersville

William E. Gibbons
William H. Lyons

**HENRY COUNTY
MEDICAL SOCIETY***Paris*

A. C. Dunlap
R. G. Fish
W. P. Griffey, Jr.
John Joel Harris
I. W. Howell
I. H. Jones
Barry P. McIntosh
Thos. McSwain Minor
E. P. Mobley, Jr.
J. D. Mobley
John E. Neumann, Sr.
William Rhea, Sr.
William G. Rhea, Jr.
Kenneth G. Ross
J. Ray Smith
T. C. Wood

**HICKMAN-PERRY
MEDICAL SOCIETY***Centerville*

Parker D. Elrod
T. James Humphreys
Arthur Lloyd Jones

Hohenwald

Edgar D. Akin
Bobby J. Smith

Lexington

Max Aldon Crocker

Linden

Bertie L. Holladay
Gordon H. Turner, Jr.

Parsons

Robert M. Fisher
Paul F. Teague

**JACKSON COUNTY
MEDICAL SOCIETY***Gainesboro*

J. D. Crabtree
Elijah M. Dudney
Jack S. Johnson

**KNOX COUNTY
MEDICAL SOCIETY***Concord*

Malcolm F. Cobb
R. H. Duncan, Jr.

Copperhill

W. C. Zachary, Jr.

Corryton

A. D. Simmons

Halls

George Fillmore

Knoxville

Eugene Abercrombi
L. Alton Absher
James J. Acker
Joseph E. Acker, Jr.
Tea Edward Acuff
William J. Acuff
Robert L. Akin
Edmund B. Andrews
Charles M. Armstrong
John W. Aver
Anne B. Avery
Martin R. Baker
O. E. Ballou
Floyd N. Bankston
Walter C. Beahm
Daniel F. Beals
Joe D. Beals
John H. Bell
Spencer York Bell
Walter Benedict
James C. Benton
Bruce Bellomy
Charles W. Black
Joe W. Black, Jr.
H. A. Blake
Wade H. Boswell
H. O. Bourkard, Jr.
Jacob T. Bradsher
Richard F. Brailey

Robert G. Brashear
Robert J. Brimi
Clayton M. Brodine
Robert T. Brooks
Fred F. Brown
Horace E. Brown
Raymond C. Bunn
Edward Buonocore
J. A. Burdette
John H. Burkhardt
William G. Byrd
J. Ed. Campbell, Jr.
John W. Campbell
Clyde L. Capps
P. H. Cardwell
C. Sanford Carlson
Kenneth B. Carpenter
Lloyd G. Caylor
Jack Chesney
L. Warren Chesney
H. E. Christenberry, Jr.

K. W. Christenberry
Henry Christian
C. L. Chumley
William E. Clark
Edward S. Clayton
H. G. Coker
I. Reid Collmann
Edward D. Conner
David A. Corey
Dennis Coughlin, Jr.
M. L. Courtney
James B. Cox
John J. Craven
Miles S. Crowder
Joe C. Crumley
J. P. Cullum
C. Harwell Dabbs
Elvyn V. Davidson
Daniel Davis
Lloyd C. Davis
Martin Davis
Oliver Delozier
Ray W. DePue, Jr.
W. A. DeSautelle
Albert W. Diddle
Sheldon E. Domm
Larry Dorsey
John H. Dougherty
Robert E. Dougherty
James E. Downs
Thomas B. Drinnen
Mary Brock Duffy
James B. Dukes
C. R. Earnest, Jr.
E. M. Edington
James B. Ely
Richard J. Erickson
John Harold Evans
Frank A. Faulkner
Mark P. Fecher
George H. Finer
William P. Flowers
J. Marsh Frere
Fred M. Furr
William F. Gallivan
Frank B. Galyon
J. C. Gambill
Joseph I. Garcia
William H. Gardner
George L. Gee, Jr.
Garrison Geller
Robert H. Gentry
C. F. George
J. Vivian Gibbs
Robert B. Gilbertson
Richard A. Gillespie
Abner M. Glover, Jr.
B. D. Goodge
James R. Guyton, Jr.
T. F. Haase, Jr.
Walter S. E. Hardy
Robert W. Harris
David N. Hawkins
T. J. T. Hayes, Jr.
M. Lou Hefley
George G. Henson
Zelma L. Herndon
James H. Hickman, Jr.
Howard K. Hicks
Hubert C. Hill
Oliver W. Hill
Victor Hill
R. L. Hobart, Jr.
David F. Hoey
Leon C. Hoskins
G. Turner Howard
John W. Howe
Fred E. Huftedler
Perry M. Huggin
Charles C. Hutson
E. C. Idol
Clifton E. Irwin
A. L. Jenkins
Harry H. Jenkins
J. R. Johnson
Joe Breese Johnson

Francis S. Jones
Paul L. Jourdan
Margaret E. Joyce
George M. Katibah
Anthony A. Kattine
William M. Keeling
A. Pat Kelly
H. M. Kelso
A. Glenn Kennedy
John O. Kennedy
John E. Kesterson
Stacy H. Kinlaw
Victor H. Klein, Jr.
Lamar L. Knight
Willis F. Kraemer
William G. Laing
A. H. Lancaster
Robert F. Lash
William M. Law
F. K. Lawson
Robert P. Layman
Walter J. Lee
R. J. Leffler
John H. Lesher
Robert A. Lewis
Felix G. Line
Thomas L. Lomasney
Frank London
Henry H. Long
Joe L. Luna
J. R. Maddox, Jr.
Gershom Mailman
Margaret Maynard
Bruce R. McCampbell
William J. McCoy
William E. McGhee
Carroll W. McGinnis
J. S. McMurry
C. Robert W. Meadows
Edwin E. Miller
William O. Miller
Foy B. Mitchell
Jack Murphy Mobley
John D. Moore
John D. Moore, Jr.
Joseph B. Moon
Travis E. Morgan
Robert W. Morris, Jr.
James E. Mosely
George Murray
William S. Muse
James D. Myers
Cecil F. Mynatt
J. B. Naive
Carl A. Nelson, Jr.
John R. Nelson, Jr.
William A. Nelson
H. L. Neuenschwander
Robert W. Newman
Park Niceley
Hazel Marie Nichols
George T. Novinger
Elvin B. Noxon
Richard A. Obenour
Kenneth A. O'Connor
Harry K. Ogden
Homer C. Ogle
B. M. Overholt
Turan Ozdil
R. W. Patterson, Jr.
R. F. Patterson, Jr.
William L. Patterson
F. H. Payne
C. G. Peagler
Jarrel Penn
H. Dewey Peters
Ira S. Pierce
Cecil E. Pitard
William F. Powell
Bruce R. Powers
Wilson W. Powers
H. Hammond Pride
T. C. Prince, Jr.
James C. Prose
John A. Range
Joe L. Raulston
Freeman L. Rawson
W. Gilmer Reed
William H. Reeder
Paul D. Richards
N. G. Riggins
John C. Rochester
Frank T. Rogers
William K. Rogers
Burton M. Rudolph
Kenneth B. Rule
John H. Saffold
Carl T. Sammons
Richard C. Sexton
Digby G. Seymour
Alex B. Shipley
Elton E. Shouse
E. Charles Sienknecht
Frank J. Slemmons
Charles C. Smeltzer
E. B. Smith
J. Gordon Smith
Joe T. Smith

Vernon I. Smith
W. Eidson Smith
James L. Southworth
Thomas F. Stevens
J. Hooper Stiles
J. M. Stockman
William K. Swann
Edward L. Tauxe
Dale A. Teague
Philip C. Thomas
William M. Tipton
Lucian W. Trent
George M. Trotter
James E. Turner
M. Frank Turney
Thomas D. Vance
Howard Vesser
Norma B. Walker
Calvin R. Wallace
Sidney L. Wallace
Donald E. Wallis
Clifford L. Walton
R. G. Waterhouse
David H. Waterman
James H. Waters
David T. Watson
Glenn F. Watts
Alvin J. Weber
Roy A. Wedekind
Arthur W. Welling
Fred West
Herbert F. White
Roger E. White
Richard L. Whittaker
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Vernon H. Young
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Curtis C. Sexton

Lenoir City

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Walter C. Shea, Jr.
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Loudon

Corrie Blair
Samuel A. Harrison
W. B. Harrison
William T. McPeake
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Mascot

John C. Adler

Maynardville

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Jean C. Tarwater

Oak Ridge

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Seaton Garrett
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Tazewell

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Vonore

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A. K. Ghosh
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I. Edward Ewton
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Englewood

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Etowah

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